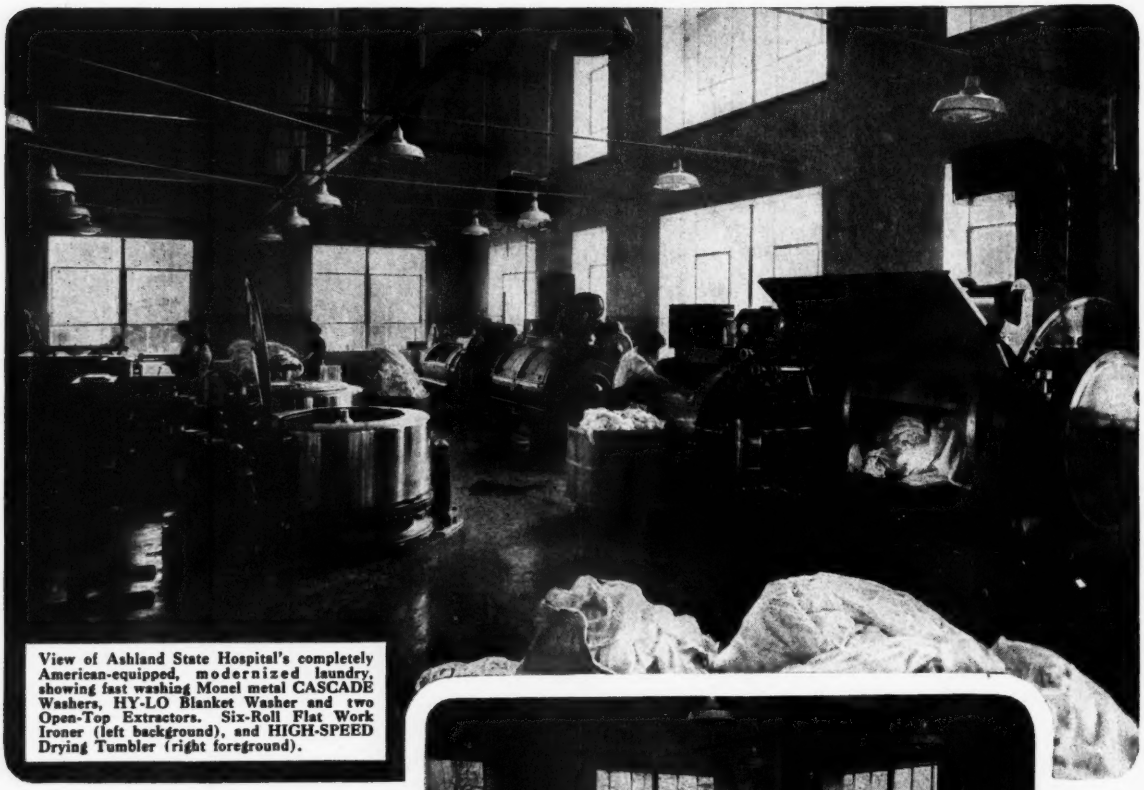
TORONTO, MARCH, 1942

THE CANADIAN HOSPITAL

· OFFICIAL JOURNAL · CANADIAN HOSPITAL COUNCIL ·



View of Ashland State Hospital's completely American-equipped, modernized laundry, showing fast washing Monel metal CASCADE Washers, HY-LO Blanket Washer and two Open-Top Extractors. Six-Roll Flat Work Ironer (left background), and HIGH-SPEED Drying Tumbler (right foreground).

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In planning its new laundry, Ashland State Hospital was guided by Joseph L. Steel, A. I. A., Registered Architect, 23 N. Third St., Harrisburg, Pa., who, in collaboration with the State Department of Welfare, prepared specifications for equipment to handle the work most conveniently and economically. Based on these specifications, our Company was awarded the contract for completely equipping the laundry. As a result, Ashland State Hospital now enjoys the benefits of the highly efficient, modernized laundry pictured above.

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"The Canadian Hospital"

Official Journal of the Canadian Hospital Council

Vol. 19 MARCH, 1942 No. 3

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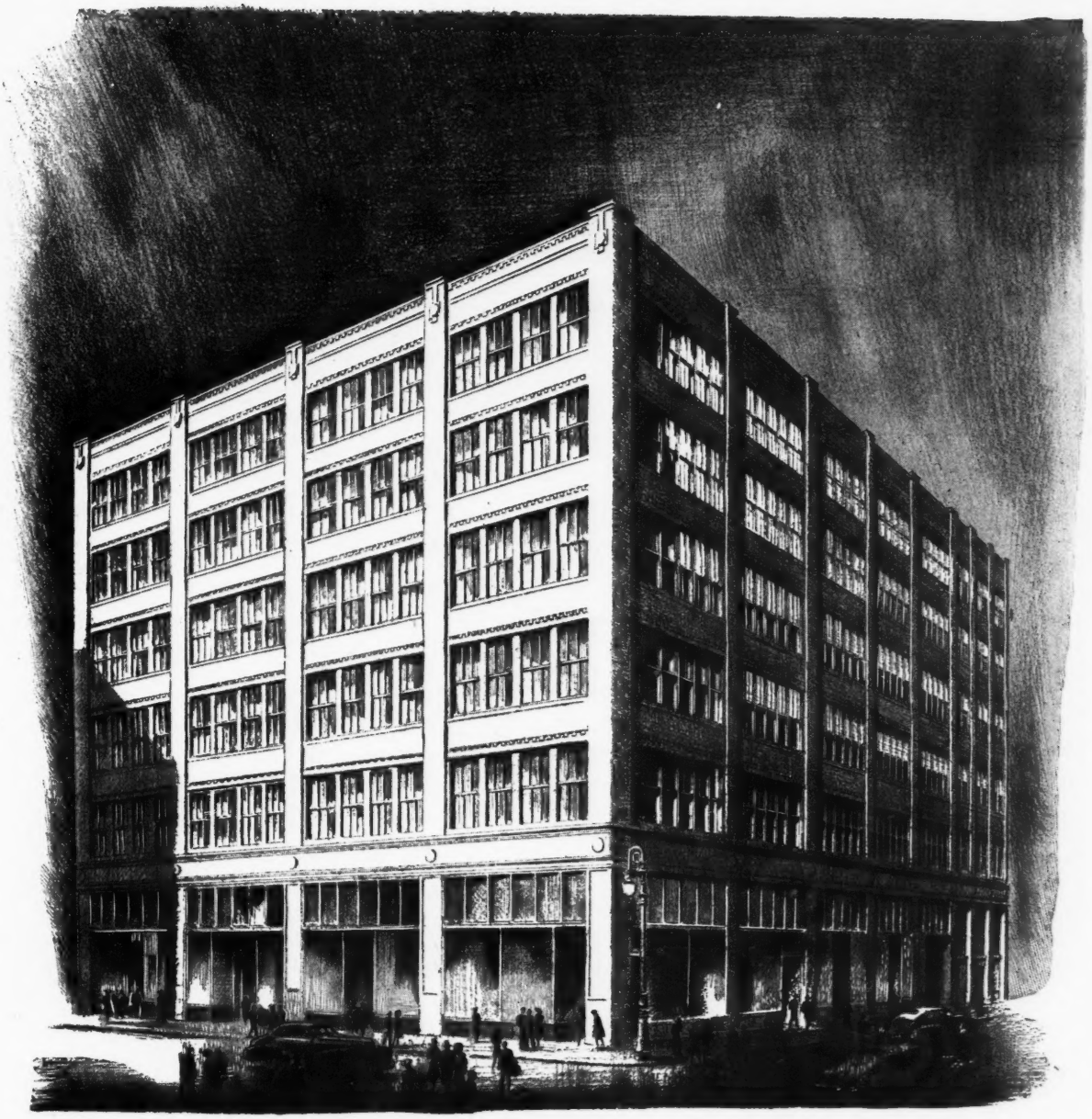

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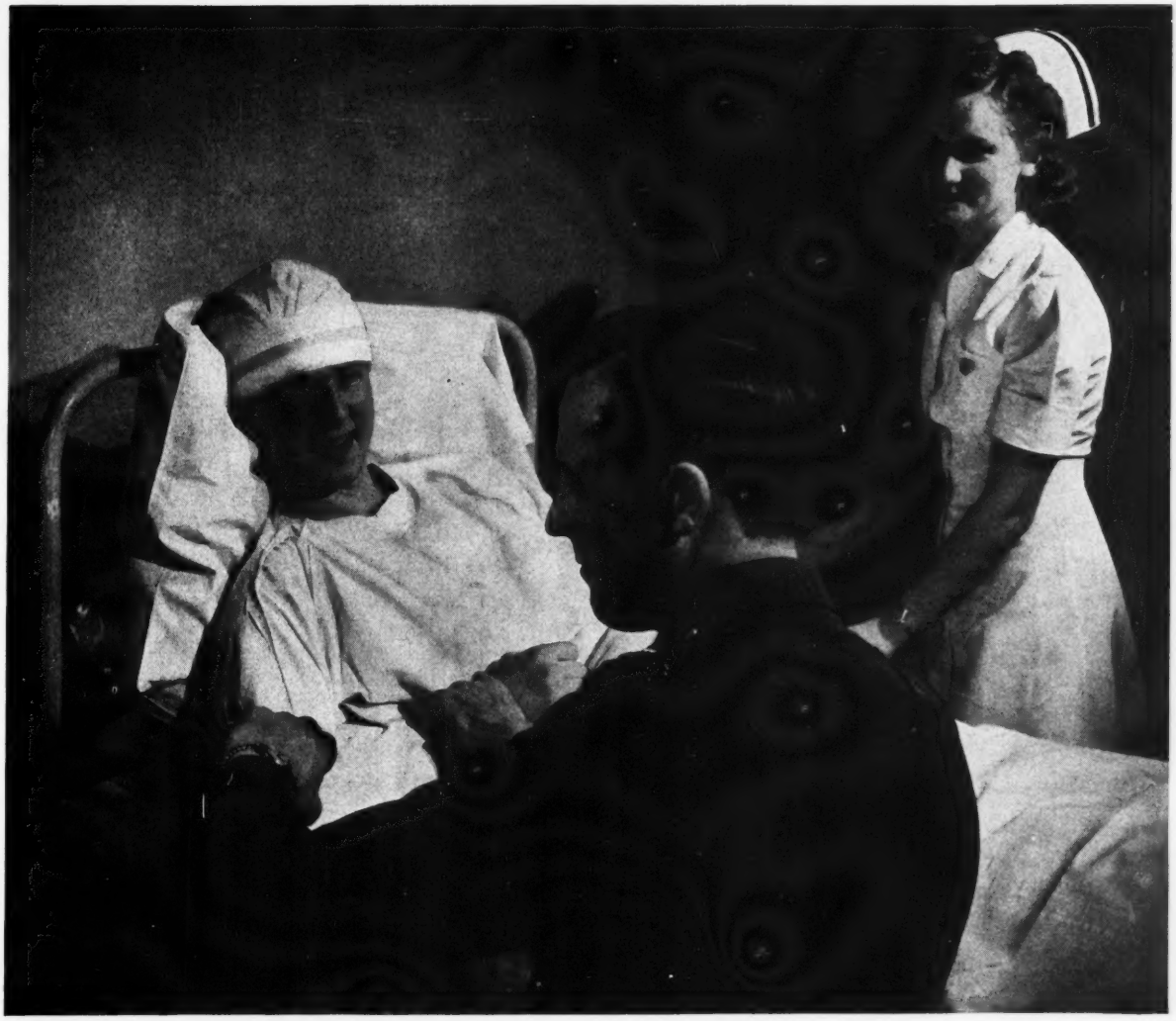
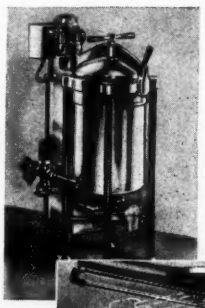
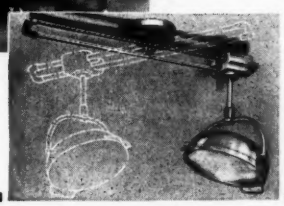


"Thanks, Doc"





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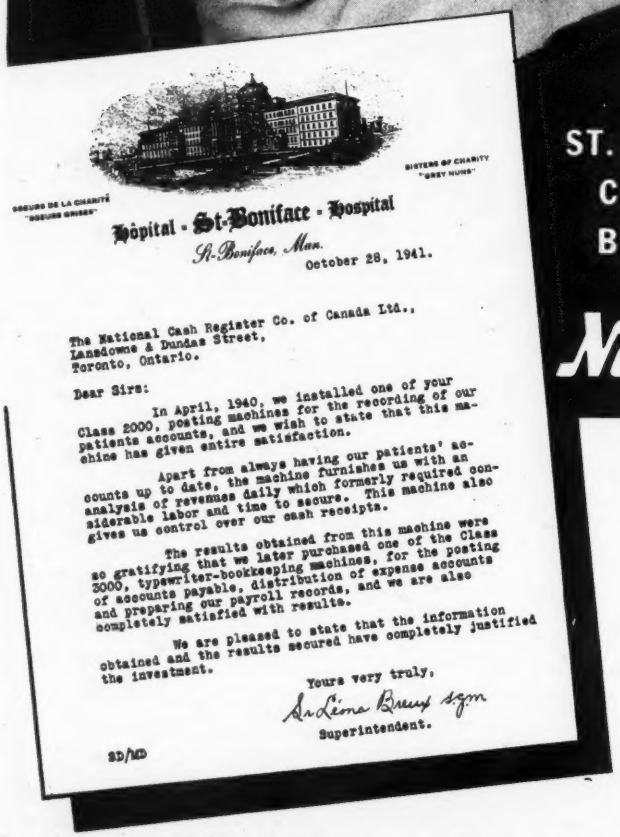

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All letters will be treated confidentially. The decision of the judges will be final.

As the judges will start their judging early in May, all letters to be considered must be mailed by April 30th, 1942.

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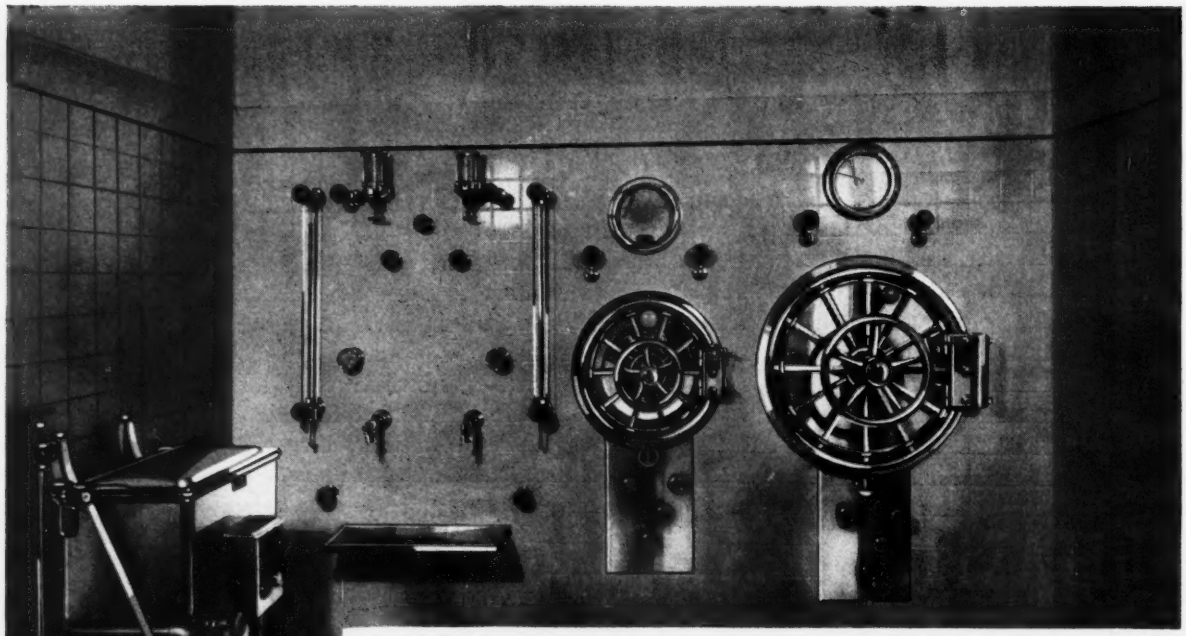

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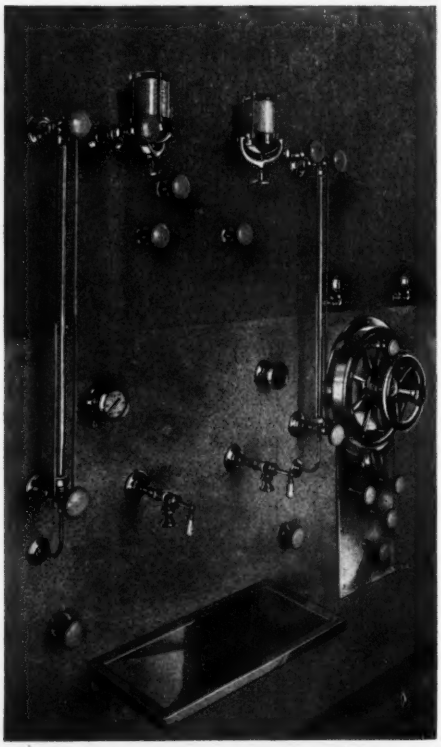

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● *Above: Scanlan-Morris sterilizers at Decatur and Macon County Hospital, Decatur, Illinois.*

● *Right: Scanlan-Morris sterilizers in a sterilizing room serving two main operating rooms at Victoria Hospital, London, Ontario, Canada.*

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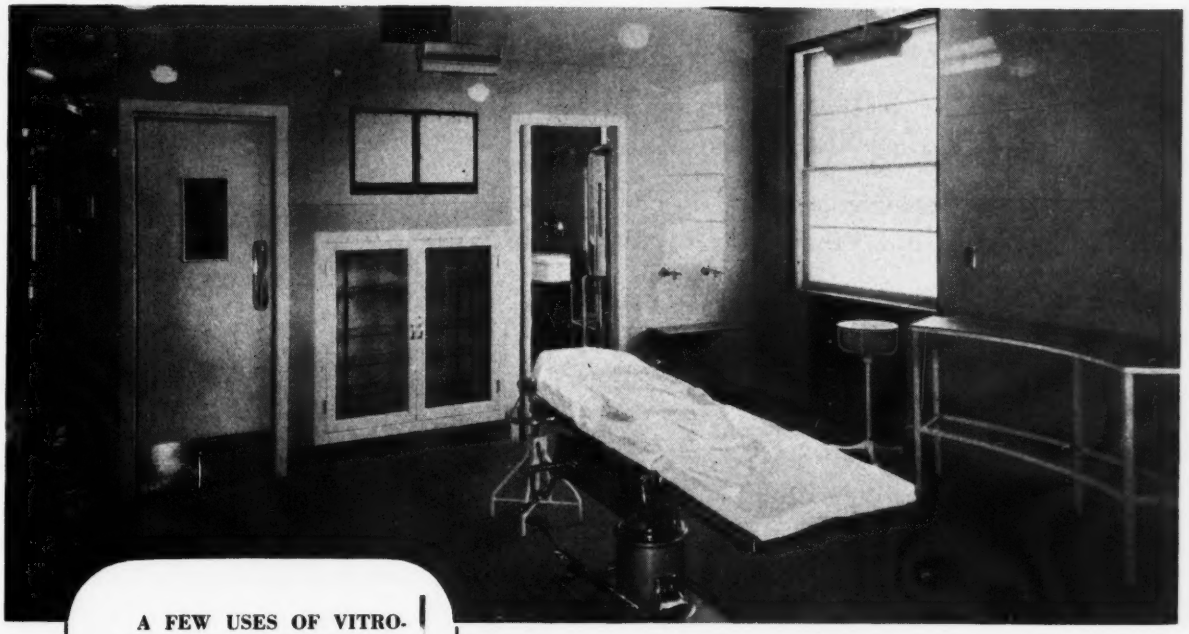

Operating Room: Shaughnessy Military Hospital, Vancouver, B. C. Mercer & Mercer, Architects.

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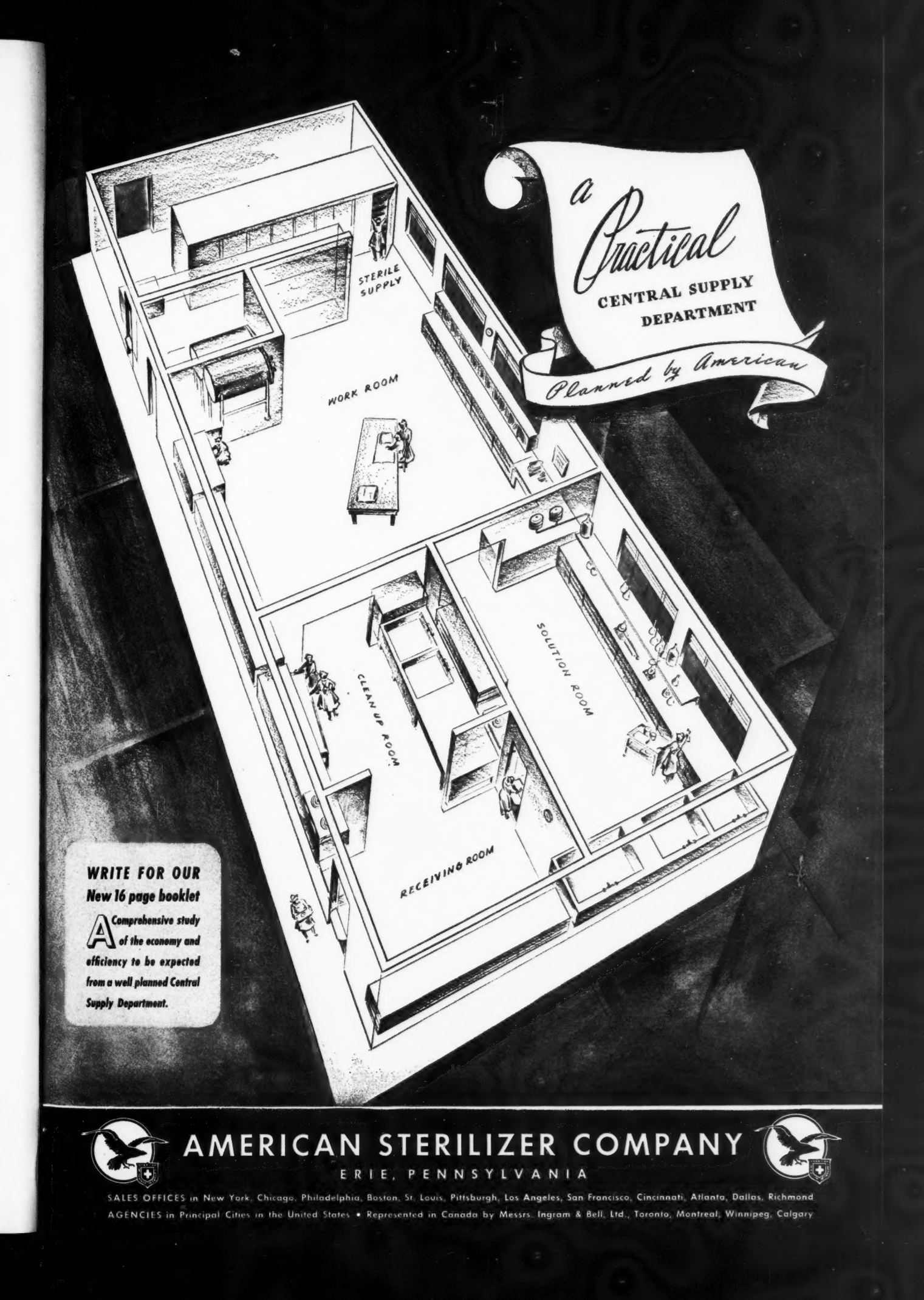
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Q. When I serve a dish of canned peas or spinach or some other canned vegetable to a patient, how can I know how much ascorbic acid the patient is getting?

A. I couldn't assign a definite numerical value. All vegetables have an upper and lower limit of ascorbic acid content. This probably is also true for their other essential nutrients. The ascorbic acid content of a given sample is determined by a number of factors, like variety, state of maturity when picked, soil, weather, and what happens to the vegetable between the time it is harvested and served to the patient. It is very likely that canned vegetables are fully equal in ascorbic acid content to kitchen-prepared vegetables. I suggest you be guided by reliable publications on the ranges of vitamin contents in canned foods. (1)

American Can Company, Hamilton, Ontario;
American Can Company Ltd., Vancouver, B.C.

(1) 1936. Food Research 1, 3
1936. Ibid 1, 231
1938. Nutrition Abstracts and Reviews 8, 281
1939. Canned Food Reference Handbook, American Can Company, Hamilton, Ont.
1940. J. Am. Diet. Assoc. 16, 891

Harvey Agnew, M.D., *Editor*

The CANADIAN HOSPITAL

Toronto, March, 1942 **Vol. 19** **No. 3**

Hospital Rates Released from Ceiling Restrictions

HOSPITALS throughout Canada will welcome the final ruling of the Administrator of Services under the Wartime Prices and Trade Board that *inclusive room rates* will not be put under the ceiling of the prevailing rates as of September 15 to October 11 last. This reverses an earlier ruling reported and commented upon in our January and February issues.

The new ruling (see adjacent columns) does retain a ceiling upon the charges for *meals* served to doctors, visitors, special nurses and others purchasing meals only. *Extras,* such as X-ray or laboratory charges, special drugs or operating room or case room charges, were declared exempt from the ceiling in a previous ruling.

The Canadian Hospital Council has been in close touch with the Administrator of Services and the officials of his Department relative to the desirability of making this arrangement. The hospitals, having been given this advantageous ruling, are now under the onus of playing fair with the Board. These Boards have been set up to prevent inflation by keeping down the cost of living. By giving us this concession, a potential rise in the cost of living to people with sickness in the family has been created. The Council has assured the Government that the hospitals will do two things:

(a) *Practise every possible economy of operation;*

(b) *Raise their rates to patients only if such action is absolutely necessary to meet the costs of operation.*

It is anticipated that most hospitals will be able to carry on at their present rates; in the case of the others, now finding themselves facing serious deficits, it is hoped that the increases will be only to the extent rendered necessary by their financial state. Undoubtedly complaints will be made to the Administrator by the public, and hospitals which have raised their rates should be in a position to justify their action to the Board, should a financial statement be requested.

(*For Effect on Subsidies see p.* 49)

HOSPITAL RATES

The serving of meals is one of the services designated under the Maximum Prices Regulations, while the renting of furnished rooms is covered by the Maximum Rentals Regulations. Consequently room and board expressed as an all-inclusive rate, comes under the ceiling. However, the all-inclusive rate quoted by hospitals includes not only room and board but also such additional services as nursing and ancillary clinical and laboratory care.

Therefore, it is ruled that inclusive rates charged by hospitals covering the various services rendered, including meals, are exempt from the provisions of the Maximum Prices Regulations; except that the prices charged for meals served to doctors and visitors or charged for meals and/or room rent to nurses who may or may not be in residence, are not so exempt and that the prices of such meals and/or room rent may not be increased above the prices charged during the basic period established by the Regulations, viz. September 15th to October 11th, 1941, without the consent of this Administration.

James Stewart,
Administrator of Services,
Wartime Prices and Trade Board.

Should Gas Warfare Come!

Suggested Personal Cleansing Unit Layout

By M. E. J. STALKER, M.B.,
Inspector of Hospitals for Ontario

THE accompanying plan of a personal Cleansing Unit was suggested by a rough sketch drawn for us by Professor J. M. Mackintosh of Glasgow University, who is, for the time being, consultant to the Office for Civilian Defence at Washington. We are indebted to Professor Mackintosh for this conception of a cleansing unit.

The hospital dealing relatively slowly with stretcher cases only, does not need to provide for separate rooms for the sexes. The usual construction is a wooden hut of the garage type, close to a side entrance to the hospital and linked, if possible, by a wooden corridor. The hut is thoroughly ventilated and no attempt is made to render it gas proof. It consists of three sections:

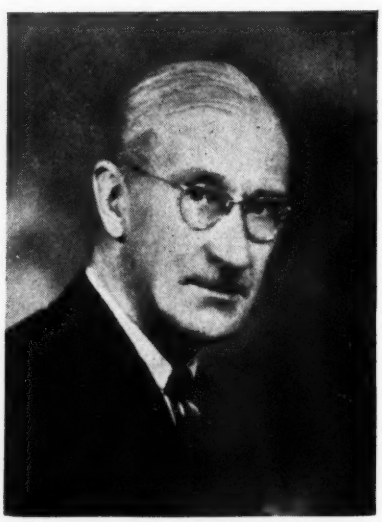
1. An undressing room inside the entrance with covered bins for the reception of contaminated clothing.
2. A central spray room with two tables covered with impermeable material. This room is provided with basins with hot and cold water, eye douches and a centrally placed hose pipe with a "rose" spray fitting. It is so arranged on a spring that a nurse can pull it down close to the patient and release it upwards when out of use. Fixed sprays are unsafe for stretcher cases. An illustration of this spray fixture is shown to the left of the sectional view of the building at the lower part of the drawing. It is suggested, and it is shown in the drawing, that the water delivered to the pipe supplying the spray should proceed from a mixer set to supply water at an appropriate temperature. Shelves are also provided in the spray or cleansing room for solutions, etc.

Submitted for the Director of Medical Services, Dr. B. T. McGhie, Civilian Defence Committe, A. R. P.

Correct Use of Terms

In A.R.P. literature emanating from the United Kingdom, the word "decontamination" is used to describe the removal or rendering innocuous of objects, materials, etc., which have been contaminated by poison gas, whereas the operation of removing or attempting to neutralize gas which has come to rest on the *human body* is referred to as "personal cleansing".

3. The dressing room leads directly to the connecting passage which links the annex with the hospital. Space along the flanks of the connecting passage has been utilized for shelves or cupboards for storing blankets, clean clothing, etc., for patients before they are removed into the hospital.



Alexander Esson

Mr. A. Esson, president of the Saskatchewan Hospital Association, has been appointed Business Manager of Saskatoon City Hospital. Now superintendent of Rosetown Union Hospital, he will take up his new duties on April 1st.

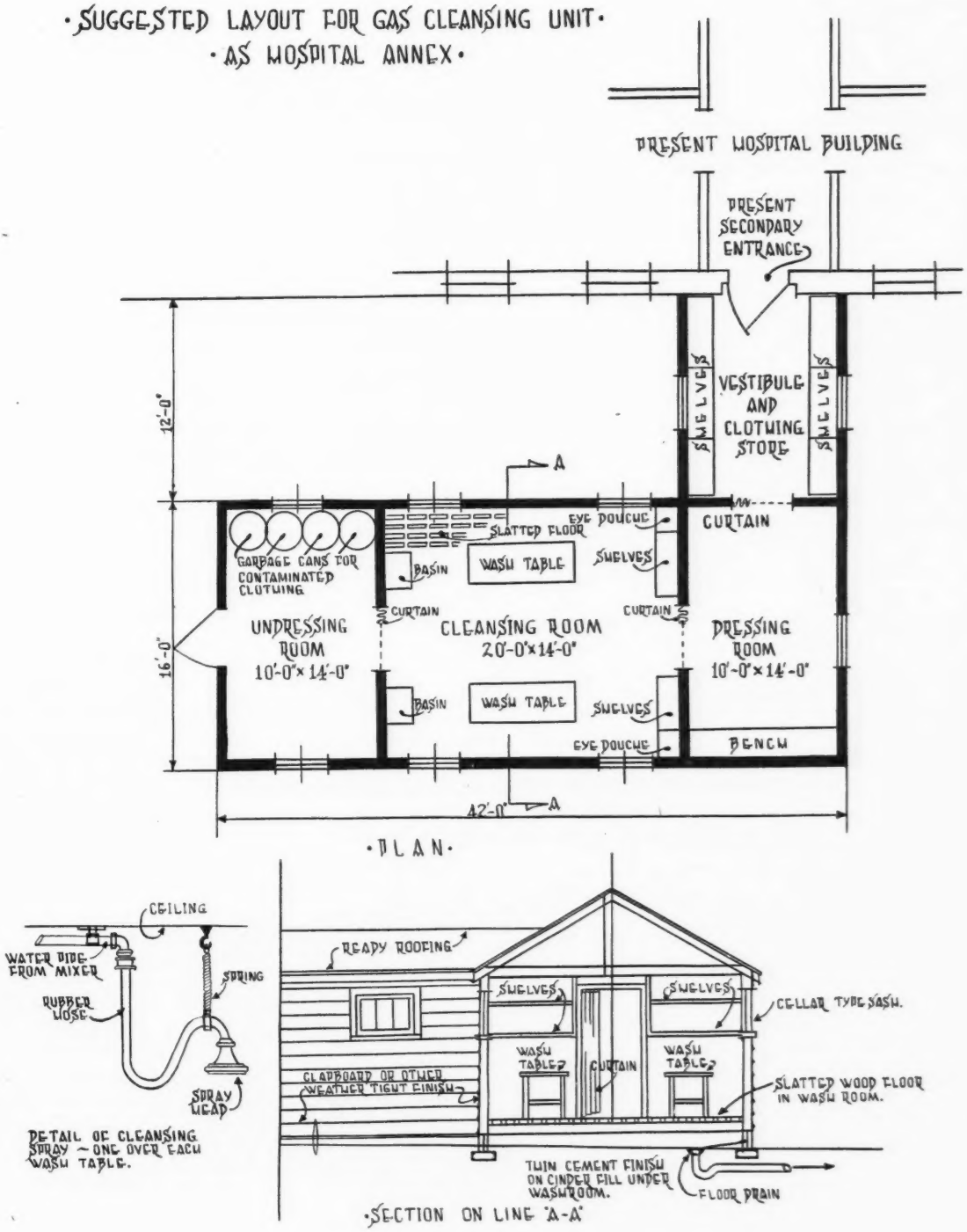
Procedure

Waiting stretcher cases have their outer contaminated clothing removed and are covered with fresh blankets and kept warm in the open air. On admission, two by two, to the reception room (one sex at a time), they are fully undressed and any superfluous dressings, splints, etc., removed —but not what is absolutely necessary to secure immobilization. They are then carried on stretchers to the dressing room and transferred to the tables, following which stretchers are removed at once to the cleansing dump in the open.

The cleansing room is warm and moist. There all dressings, splints, etc., are removed and one attendant quickly washes essential splints with Eusol.* The patient is carefully washed with warm Eusol (or other non-irritating hypochlorite) and dried. Splints and dressings are then restored without elaborate fixation. Meanwhile a clean stretcher and blankets are handed in from the dressing room and each patient is transferred in turn to the dressing room (eyes of course have received attention; one attendant should be in charge of face and eyes and hair in the cleansing room and another washes the body). When the patient reaches the dressing room, splints and dressings are fixed and he is sent on to the hospital as a clean case.

This requires four attendants in the undressing room—fully protected, which means full protective clothing and wearing respirators. Four attendants are also required in the spray room with respirators and at least oil-silk aprons. At least two attendants should be on duty in the dressing room.

* Eusol—an antiseptic solution containing calcium chloride, calcium borate and hypochlorous acid compounds.



Prepared by the Ontario Department of Health from a layout submitted by Dr. J. M. Mackintosh of Glasgow.

Modern Nursing Procedures Take More Time

Manitoba Survey Makes Time Analysis of Clinical Duties

WHY are so many more nurses needed on the wards now than were necessary a decade or two ago? Every director of nursing knows the answer, but it remained for the nurses in Manitoba to set down in black and white, and to the decimal point, what these factors really are.

At the suggestion of the School of Nursing Advisor of the Manitoba Association of Registered Nurses, Miss Gertrude M. Hall, a time study of selected nursing procedures was made in one of the larger hospitals. Everybody co-operated and, through the interest and generosity of one of the surgeons, a well qualified nurse was employed to make the study.

The aim of the survey was to show as accurately as possible the amount of nursing time spent on special treatments over a period of three months, and from this information to determine if possible what nursing service personnel would be required to furnish *adequate nursing care* to all patients. To do this a number of different treatments were timed and their frequency and time of occurrence recorded. A stop watch was used by the nurse making the study, so that all timings are accurate. The constituent parts for the timing of each treatment included: (a) preparation for treatment; (b) giving treatment; (c) cleaning up after treatment and (d) charting of treatment.

Intravenous Infusions (92 timed)

Average time 26 min. 09 sec.
Minimum time 12 min. 43 sec.
Maximum time 87 min. 45 sec.

This did not include an estimated 15 minutes required to prepare each flask of solution for sterilization, and some ten minutes preparing each intravenous bundle.

Blood Transfusions (13 timed)

Average time 58 min. 26 sec.
Minimum time 26 min. 21 sec.
Maximum time 114 min. 30 sec.

As noted above, an additional 25 minutes is required to prepare solutions and bundles. The nurse in charge often spends considerable time arranging for donors.

Lumbar Punctures (32 timed)

Average time 41 min. 15 sec.
Minimum time 25 min. 53 sec.
Maximum time 57 min. 01 sec.

This does not include time spent cleaning and preparing rubber gloves. The supply room staff estimate an additional 8 to 10 minutes spent on each lumbar puncture set on its return.

Intramuscular Injections (5 timed)

Average time 8 min. 08 sec.
Minimum time 6 min. 45 sec.
Maximum time 11 min. 35 sec.

Intravenous Injections (2 timed)

Average time 8 min. 14 sec.
Minimum time 7 min. 07 sec.
Maximum time 9 min. 25 sec.

The above two treatments are usually given by the intern, frequently without the assistance of a nurse.

Punch Operations (39 timed)

Nursing time for the first 12 hours:
Average time 2 hrs. 21 min.
Minimum time (2nd stage) 28 min.
Maximum time 6 hrs. 31 min.

Colostomy Dressings (8 timed)

Average time 13 min. 11 sec.
Minimum time 9 min. 30 sec.
Maximum time 21 min. 20 sec.

Colostomy Irrigations (11 timed)

Average time 28 min. 26 sec.
Minimum time 11 min. 35 sec.
Maximum time 43 min. 10 sec.

Sterile Preps (4 timed)

Average time 63 min. 01 sec.
Minimum time 47 min. 40 sec.
Maximum time 80 min. 15 sec.

Duodenal Drainage

The one case timed took 3 hours of a graduate's nursing time.

Gastric Suctions (34 timed)

Suction started, average 19 min. 00 sec.
Daily cleaning, average 8 min. 20 sec.
Irrigations, average 3 min. 00 sec.
Final cleaning, average 22 min. 20 sec.
Feedings, average 3 to 6 min.
Nursing time per suction (4 days) 3 hrs. 44 min.
Nursing time each day 56 min.

Time Consuming Factors

Among those enumerated were:
A new class of interns. Intravenous treatments averaged 4 minutes, 02 seconds longer.
Instruction on the wards.
Junior nurses, graduates from other hospitals and nurses unfamiliar with a ward.
Waiting for interns and arranging for donors.
Faulty equipment.

(*Continued on page* 68)

Hours of Bedside Nursing Required

Adult medical	An average of 3-3½	hours of bedside nursing in each 24
Adult surgical	" " " 3-3½	" " " " " " 24
Obstetrical:		
Mothers	An average of 2½-3	hours of bedside nursing in each 24
Infants	" " " 2½-3	" " " " " " 24
Pediatrics:		
Infants	An average of 6	hours of bedside nursing in each 24
2-5 years	" " " 4½	" " " " " " 24
5 years and over	" " " 4	" " " " " " 24

From Recommendations made
by the National League of Nursing Education

A "Community Doctor Service"

Inaugurated by the Red Cross

By Dr. Wm. S. CALDWELL, Supervisor of Health Services, Canadian Red Cross Society, Ontario Division

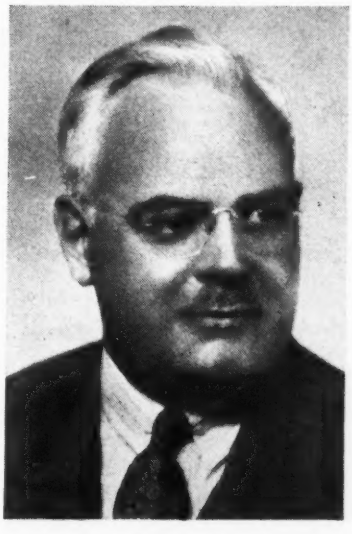
THE present wartime scarcity of doctors, although affecting all parts of Canada, has resulted in a real hardship in many rural areas where there are no other doctors, nor are others readily obtainable, to fill the gap. To provide people in these areas with adequate medical care constitutes a real problem.

It is to meet this situation in Ontario, where approximately 25% of the doctors have enlisted in the Forces or volunteered for other war services, that the Canadian Red Cross Society, Ontario Division, has introduced the "Red Cross Community Doctor Service" as an emergency service. This is a service which includes a plan of prepayment for medical care, and has been developed in consultation with the Canadian Medical Association, Ontario Division, and the Provincial Department of Health. Dr. Wilfred I. Cumming, a graduate of Edinburgh University and until recently with the Scottish Mission in Manchuria, is the first "Community Doctor". He has recently taken up practice in Desbarats, thirty miles east of Sault Ste Marie, to serve the people of four rural municipalities in Algoma District.

Reasonable Income Assured

The financial arrangements are such as to assure the doctor a reasonable standard of living. A minimum income of four thousand dollars is guaranteed by the Ontario Division of the Red Cross. To apply against this are dues from subscribers, fees from private practice to residents who are non-subscribers and municipal grants. Additional income may be derived from services to workmen under the Compensation Act, from attendance upon tourists and non-residents and from other sources.

The basis of service is general practice. The Community Doctor is the sole judge of what this includes, but no extra fees can be charged for any "added" service to a subscriber. The doctor provides his own transportation to home and hospital, which must be within twenty-five miles. Patients provide their own drugs and supplies except for emergency and office care. Provision is made for *locum tenens* for a two weeks' holiday at the expense of the administration and for leave of absence for post-graduate study at the expense of the Community Doctor. As far as possible, the usual patient-doctor relationship is maintained, and the administration does not interest itself in the diagnosis or treatment. This last-mentioned provision is possible because of the voluntary aspect of the plan.



Subscribers Solicited

Enrolment in a prepayment plan is urged. Before the introduction of a new service and once each year thereafter, a family-to-family canvass is made for subscribers by the local Red Cross. Although dues are paid on a per capita basis, families which choose to become subscribers must participate as a unit, special provision being made for those with many dependent children. Families who do not subscribe in advance have to pay an additional 10 per cent and wait 30 days (maternity, 9 months) for service. Non-subscribers are related to the plan only with respect to the guaranteed income.

It is planned that the premiums to

Dr. Caldwell has had an intimate experience with rural medical needs as he maintained a large village practice in rural Ontario for some years, and for some time now has been in charge of the 29 Red Cross outpost hospitals in that province.

subscribers for this pre-paid medical service will be worked out in the light of the various factors prevailing in the respective communities. The proposal is to cover general practitioner care only, hospital care not being included.

To-day, when there is an enlightened attitude towards public health, the plan will be of interest because of the emphasis on preventive medicine. The Community Doctor will be the Medical Officer of Health, the stipend from the Municipality being appreciably higher than usual to help finance the entire project. The prepayment feature will encourage early consultation. The doctor's duties are understood to include prenatal and infant welfare care, immunization, school health as well as the usual attention to municipal sanitation. In the case of the present Service in Algoma, the proximity of a Red Cross Outpost Hospital makes it possible for the doctor to have the assistance of a Public Health Nurse, a circumstance which increases tremendously the potentialities for improved community health.

Many Advantages

When to the emphasis on preventive medicine is added the voluntary aspects of the prepayment feature, and the provision for centralized supervision, considerable promise of success is given to the entire experiment. Unlike the Municipal Doctor Plan, a patient is free to choose his own "family physician" and no one need support the project if, because of location or otherwise, he prefers an "outside" physician. Municipal politics and disgruntled taxpayers are eliminated. The doctor is protected against unreasonable complaints and the patients are assured of the services of a well-chosen physician. The project has adequate financial protection and, with direction by Provincial health officials and representatives of the medical profession, sound, careful administration is assured.

It is obvious to every student of rural health that there is need of improved medical services in the outlying sections of the province. It is the hope of the sponsors of this emergency experiment that some contribution will be made to this problem by the Red Cross Community Doctor Service.

U.S.A. Preference Rating A-10 Applicable to Canadian Hospitals

For Repairs and Replacements Only and Not for Expansion Needs

After much negotiation, arrangements have been effected by the Department of Munitions and Supply at Ottawa whereby Canadian orders for American imports for repairs and maintenance requirements will be given the same blanket rating of A-10 now enjoyed by American hospitals.

For many months past Canadian hospitals have had great difficulty in obtaining deliveries of orders from the United States because of the inability to supply to the American manufacturer a priority number which he has found it necessary to obtain in order to make delivery to Canada.

The main purpose of the new Preference Rating Order, P-100, which now replaces the old Repair and Maintenance Order, P-22, is to extend priority assistance in order to keep plants and production machinery in specific categories in good working order.

Grouped in with Government units, manufacturing plants, warehouses, transportation systems, etc., are "hospitals, clinics and sanitoriums".

It is pointed out that P. R. Order P-100 relates only to repairs and replacements. "It is not permitted to purchase materials under the Order for expansion or betterment of property or equipment. The user in such a case should fill Form PD-1, when it is necessary to increase the operating capacity of his business. The producer should also use a PD-1 to obtain items that are capitalized and carried on his books as a fixed asset."

The Assistant Director General, Priorities Branch, Department of Munitions and Supply at Ottawa, Mr. A. A. Walker, writes that copies of P. R. Order P-100 and of the application form (reproduced on this page) are now available. The Priorities Branch at Ottawa is now in a position to issue serial numbers to applicants, thus greatly facilitating their obtaining of repairs, maintenance and operating supplies from the United States.

It is further stated that "It will be necessary for applicants to furnish us with quarterly reports, which will be done on forms to be furnished to them at a later date."

APPLICATION FOR PREFERENCE RATING ORDER P-100

Legal Name of Applicant: .....

Address: .....

Type of Business: .....

To: The Director General,
Priorities Branch,
Department of Munitions and Supply,
Ottawa, Canada.

We hereby certify that the undersigned are eligible to participate in Preference Rating Order P-100, and hereby apply for the A-10 preference rating assigned under the Order for repair, maintenance and operating supplies to be obtained from the United States.

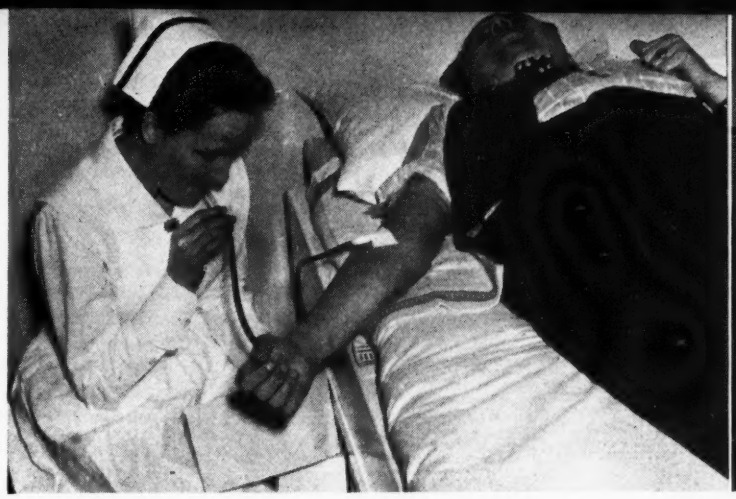
We agree to abide by the terms and conditions of the Order. We also agree to furnish to the Priorities Branch, Department of Munitions and Supply, Ottawa, quarterly reports of our inventory of repair, maintenance and operating supplies; and, using the prescribed form, give any information that may be required as to the orders to which the rating has been applied during the previous quarter.

The total value of our repairs, maintenance and operating supplies on hand as at December 31st, 1941 amounted to $.....

.....
(Name of Company) *

.....
(Signature of Official and Title)

* *or Hospital*



(Left) Mrs. J. L. Smith starts flow of blood from donor Ray Elliott at Regina General Hospital station.

(Top Right) Jack Cooley receives cup of coffee and biscuits from Mrs. Percy Wilson and Mrs. Douglas Gorrell after giving blood.

(Above) Dorothy Corbett with sample of bottled blood.

Blood Donors' Clinic Opened at Regina Hospital

With the spread of the war to the Pacific area and the growing danger of civilian casualities due to air raids, has come a realization of the need for a reserve blood supply to cope with large-scale disasters.

For many reasons the civilian hospitals would seem the logical place for setting up blood clinics. They combine ideal facilities for the drawing off, sterilization and typing of the blood, and the presence of a trained and competent medical staff to whom recourse might be had.

It was with these factors in mind that the Red Cross Blood Donors' Clinic was opened on January 19th in Regina General Hospital. The clinic is situated in the basement of the hospital, and consists of four rooms; a waiting room, a room for the clerical workers in connection with the operation of the clinic, a room where the blood is drawn, and one where the Red Cross auxiliary serves coffee to the donors.

There are 1,000 donors on the list, and blood is drawn from thirty a day on Monday and Tuesday. The rest of the week is spent in typing and packing the blood for shipment to Toronto. Later on it is hoped to increase the donations to 50 a day.

The Clinic enjoys the closest cooperation of the hospital at all stages of the procedure. Dr. D. F. Moore, pathologist of the Regina General Hospital, is the medical advisor, and others on the hospital medical staff volunteer their services in removing the blood. Twelve volunteer nurses take turns assisting. The sterilization is done in the operating room sterilizer, and the blood is typed and packed in the hospital laboratory. Mrs. Jean Robson, R.N., who is in charge of the clinic, seems to be justified in her belief that a hospital is the ideal location for a donors' clinic.

Incidentally, the drive which resulted in 1,000 donors for the clinic, was sponsored by the Junior Board of Trade. The Regina Red Cross Donors' Clinic is indeed a community project.

Public Health Laboratory Opened at Belleville

A new public health laboratory, which will be of invaluable service in the prevention and detection of communicable diseases, was opened on February 6th at Belleville General Hospital.

The opening address was given by the Hon. Harold Kirby, Ontario Minister of Health, who described the efforts being made by the Government to control and stamp out epidemics such as formerly took a toll of so many lives. Special tribute was paid to Dr. Brierley, whose chest clinic, the Minister said, was the best of its kind in Ontario.

The Care of Rubber Goods

Compiled from various sources by the Editor

OWING to the rationing of rubber and the likelihood that the regulations will be stiffened rather than relaxed, it is most important that every consumer of rubber use every means possible to reduce its consumption both by limiting its use and by eliminating waste and premature destruction. **This means every hospital and every doctor and nurse!**

Rubber will still be available, for the immediate future at least, for "medical, surgical and laboratory supplies", up to 50 per cent of the normal requirement. The United States Government has announced that it has only two years' supply of rubber on hand on a strict rationing basis. This means that the quota for civilian use, even for hospital use, may be reduced.

Before we can ask the Controller of Rubber to increase our present quota of 50 per cent, we must give evidence of a conscientious and widespread effort on the part of everyone handling rubber goods in hospital work to economize and save in every possible way. Only after such an effort have we any justification in going before the Controller with the statement that we cannot carry on with our present quota.

Rubber is a vegetable, being obtained from the latex or milk of a tropical tree called *Hevea*. Most of our supply of natural rubber has been cut off by the spread of the war to the Pacific. Pure rubber is often compounded with other ingredients to prolong its life and to make it more adaptable for commercial uses. The qualities especially to be retained or accentuated are elasticity, resiliency and impermeability to water.

Vulcanization, a heat treatment with sulphur, stabilizes the elasticity of the rubber. Various fillers will provide other qualities. The newer methods of using special agents in vulcanizing, known as accelerators, produce surgical goods offering much better resistance to oxidation and over-vulcanization. Instead of using sulphur chloride, surgeons' gloves are now cured by a process giving much better ageing qualities.

To assist hospital staffs to economize on rubber and to prolong its life, the following suggestions are given:

General Conservation of Rubber Goods

1. Buy from a reputable house to obtain good quality and freedom from adulterants.

2. Do not overbuy.

3. Store in a cool place, preferably 60 degrees and 70 degrees Fahrenheit. Containers should be intact and fairly air proof. Metal containers are recommended. Keep away from steam pipes or any oxidizing agents. Allow to assume natural shape or position. Do not crush or fold.

4. Keep all rubber out of direct sunlight.

5. Oil and grease are among the worst enemies of rubber. Avoid using vaseline on catheters or rubber gloves.

6. Excessive heat causes over-vulcanization and rapid deterioration. Keep away from radiators.

7. Avoid neglect. Articles last longer in use.

8. Mark all rubber goods. This assists in determining age and also in fixing responsibility for careless handling.

9. Nurses and others may injure thin rubber with long finger nails.

Rubber Gloves

a. *After the operation.* Wash thoroughly. Some hospitals soak for up to one hour in 3 per cent lysol, dettol or other disinfectant. Before autoclaving gloves used on an infected case, some hospitals boil them for ten minutes. The gloves are then dried, powdered and autoclaved.

b. *Sterilization.* Weedon B. Underwood has stated:

"Period of Pressure must be limited to 15 to 20 minutes to prevent serious destruction of the rubber. Two rubber surfaces in contact prevent exposure to the steam. Gloves should be stuffed with at least a quarter of an inch of crinkled tough paper in the hand portion, and, if the fingers are not collapsed in wrapping, the steam will have sufficient entrance. When the wrists are folded back two or three layers of paper or a pad of gauze should be interposed between the two

HAVE YOU DONE THIS?

Unless you have already done so:

1. **Call a meeting of your staff doctors and tell them frankly of the situation. Obtain their co-operation to economize on rubber to the limit. Ask for suggestions.**
2. **Have a meeting of your supervisors, instructors and charge nurses. Be sure that every nurse, pupil and graduate, understands the seriousness of the situation and is fully informed on the best methods of prolonging the life of rubber goods.**
3. **Refrain from storing up surplus of rubber goods. It loses life on your shelves. You only jeopardize your own and everybody else's future prospects of buying rubber by hoarding it up now.**
4. **Save all scrap rubber.**

surfaces. Gloves should be loosely wrapped and glove packs placed in sterilizer on edge."

In his "Textbook of Sterilization" Mr. Underwood recommends that the pack of gauze or other very porous material in the hand of the glove should be about ¼ inch thick and be impregnated with talcum. To-day, with the shortage of gauze, other material may be necessary.

Avoid steam sterilization for longer periods or *under pressure of over 15 pounds.* Ten minutes only is recommended by some. A rest of twelve hours is recommended by one company, which also advises that gloves be not left in the sterilizer.

For many purposes boiling may suffice instead of autoclaving.

c. Avoid dry heat sterilization.

d. Do not use vaseline or any other soft paraffin or grease as a lubricant. Tragacanth and other non-greasy lubricants are available.

For the Surgeon and Intern:

e. Do not use a new glove if a patched glove will suffice.

f. Do not change gloves in an operation more often than necessary. Do not "glove" more people than is necessary.

g. Avoid "diving" flourishes prone to tear cuffs when putting on gloves.

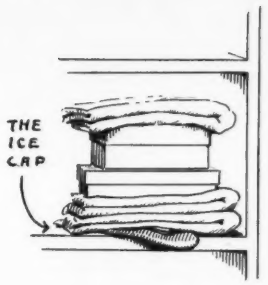
h. The provision of gloves for the anaesthetist and for most intravenous treatments is a refinement that is usually non-essential.

i. Do not grouse if you are handed a patched glove. You may be lucky to have any at all a year hence.

j. For some purposes, cotton gloves may suffice.

Hot Water Bottles

a. The worst enemy is the safety pin frequently used to pin on the



flannel cover. Pin pricks can be patched.

b. Do not pour boiling water into Hot Water Bottles.

c. Avoid contact with grease or oil. If soiled with cold cream or oils, wash with soap and water before putting away.

d. Do not put on the radiator or too close to the stove.

e. Do not overfill. Expel the air before sealing. Fill two-thirds only.

f. Do not handle roughly, kick it against the springs, bolts or any rough spots on the bed and do not let it fall upon the floor. Do not hang up when full.

g. When through, drain properly and store in a fairly cool place. Do not put other articles on top of it.

Ice Caps

After draining, washing and drying, it is recommended that a piece of gauze be placed inside to prevent cutting of the rubber. The cap should then be inflated, top screwed on and hung up. Put away as described above.

Rubber Tubing

Rubber tubing, rectal tubes, catheters, drains, etc., should be wiped clean, washed with cold water and then with warm water and soap to remove the lubricant. After rinsing, they should be placed in boiling water for two minutes, hung up to dry and then put away in a cool dark cupboard, carefully coiled in large glass or metal containers.

Never hang rubber tubing over a peg.

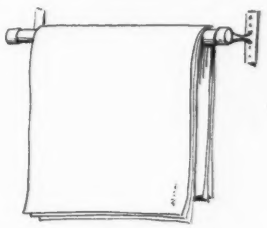
Never leave a shut-off clip closed so as to compress rubber tubing.

Intravenous tubing, etc., requiring careful sterilization, should be so arranged as to ensure circulation through the bore. Underwood recommends that this be done by wrapping the tubing in a spiral around a cardboard gauze-covered cylinder or a rolled up towel about 5 inches in diameter and placing in the sterilizer on end. Exposure should be about 15 minutes but never exceed 20 minutes.

Rubber Sheets, Pillows and Air Rings

Clean by washing with soap and water, followed by a mild antiseptic. After being dried thoroughly, rubber sheets should be hung up by clips or over a roller on a dark wall or covered with a sheet. Do not fold.

Ammonia hardens and cracks rubber sheeting. Disinfectants of an acid



nature are also harmful. Do not use oxidizing agents. Keep rubber sheets free of wrinkling while in use or in stores. Examine sheets periodically for cracks or holes.

Sterilization of rubber sheets and drapes by steam is difficult. Dry heat should not be attempted. Folding several times to permit a large sheet to be put into an autoclave means the pocketing of air in the inner squares, and that means no sterilization. Mr. Underwood summarizes his section thus:

"Probably the most effective method of handling such sheets is to fold them once on the narrow dimension, with the surfaces inside the fold well separated by a muslin covered cotton pad about half an inch thick. Then insert the folded sheet in a double thickness muslin bag long enough to contain the full length of the sheet, with ample margin at the open end for a folded closure. Roll this package very loosely and place it in the sterilizer on top of all other packages to avoid any compression. The surfaces outside the fold will be obviously most effectively contacted by steam. The surfaces folded together over the cotton pad will be less readily contacted by steam."

One would suggest boiling or, if

(*Concluded on page* 60)

By J. G. BARCLAY, Administrator, Belleville General Hospital, Belleville, Ont.

The Place of a Dietitian in a Small Hospital

THE dietitian in the small hospital heads a major department. The Dietary Department is responsible for spending approximately twenty-five per cent of the operating budget.

Accordingly this department head should be well chosen. She should possess many other qualities besides the ability to serve the several diets and prepare food properly. We all know that she may be unable to serve exactly the foods the patient may desire, yet she can so serve the diets that they will make a pleasing impression on the patient. This will pay you dividends.

An administrator desires the following in a food service:

1. Food of fine quality must be served.
2. The trays must be attractive. Tray decorations, especially on holiday occasions, plus the added bit of colour in tray covers, etc., are always very pleasing to the eye of even a sick patient. If a patient's birthday occurs while in hospital, it might be remembered by some special decoration on their tray. Such recognition is long remembered by the patient, and repeated many times during the inevitable discussions about "My Operation".
3. The food should be served in a proper and appetizing manner. Many small hospitals do not give their dietitians the proper facilities for the delivery of foods to the patient. I am reminded of the small slides which only carry two or three trays—unheated, and perhaps even colder than the rest of the building—which must be used to convey the food from the diet kitchen to sixty per cent or more of your patients.

The chief dietitian should make periodic rounds at meal times to see that the service of the foods to the patient is carried out properly even after it has left her department.

One of the most outstanding qualities of the dietitian should be her ability to organize her department in such a manner that it will promote harmony among the staff, co-operation, and loyalty to the institution. She should recognize the individual abilities of her workers, and see that each is doing the work for which he is best adapted. The department is a difficult one from this angle because of the hours, the exact times of meals and, too often, the monotony of the work.

The Menus and Formulae

The dietitian should prepare the menu in triplicate one week in advance. One copy goes to the administrator, one to the store keeper and one is put up on her own staff notice board. The administrator's copy shows him what is being served at any specific meal, so that if a complaint is made he is better able to deal with it. The copy to

Above—A nurse in training preparing the baby formulae for the nursery under the supervision of Miss Shantz the chief dietitian. Left—The bulletin board receives all orders. Miss Shantz, Miss O'Grady, student dietitian and Mrs. Howard, the pastry chef.

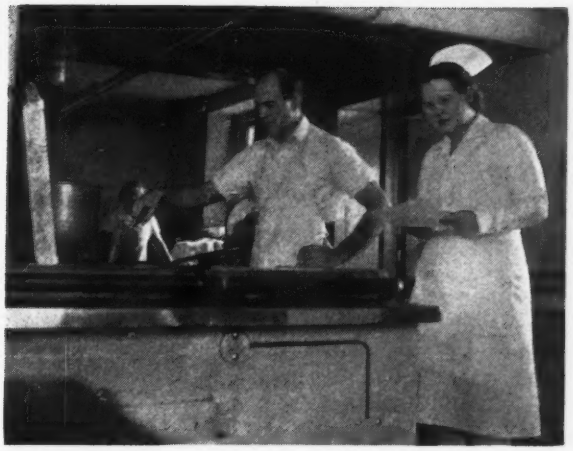
the storekeeper will warn him in advance what commodities in his stock will be needed for the coming week.

Special mention should be made of the infant formulae for the nursery. These should be prepared and bottled under very sterile conditions in a section set aside for this work alone in the diet kitchen, and supervised by the chief dietitian. Even the special formulae for individual infant diets are made here, and not on the obstetrical floor or nursery. All workers on infant formulae should wear gown and mask.

Since in some of the smaller hospitals the handling of diets and the preparation of food are part of the nurse's duties, training in at least the fundamentals of dietary work is most advisable for the nurse in training. The dietitian might reasonably be expected to give a course of lectures on the subject, and follow this by practical instruction when the student nurses take their turn helping in the dietary department.

From the administrator's viewpoint, the dietitian must know the value of food, not only in its vitamin, caloric or chemical content, but also in dollars and cents. She should be able to arrange well-balanced menus, and still avoid the use of commodities which have become expensive, not because of their food value, but more because of crop failures, import regulations, or because they come from countries at present engaged in war. She should "patronize the local dealer" as much as possible, especially for her perishables, buying vegetables and fruits in season. The good-will built up by this practice is of great importance to the hospital.

There should be the closest co-operation between the dietitian and the administrator regarding all purchases. The administrator is usually the purchasing agent, buying all staple items by contract where advisable and by quotation systems wherever possible. The administrator is the logical person to do this mass buying, because he can keep the market quotations recorded and bring changes in price to the attention of the dietitian. A weekly or bi-monthly discussion on price trends between the dietitian and the administrator would be helpful.



The chef, Mr. Norridge, and the chief dietitian inspect a special order.

The dietitian's time is valuable, and she should not be at the mercy of any commercial traveller with a new gadget to demonstrate. Such persons should be kept out of the department, unless definite arrangements have been made for an appointment.

The Purchasing Set Up

As an example of the purchasing set up in a small hospital and the distribution of the commodities to the dietitian's department, our arrangement here may be cited:

1. The dietitian buys all perishables except where contracts have been arranged, as for milk, butter, eggs and bread.
2. Regarding the meats:
   (a) The meats should be requisitioned daily and prices obtained by telephone from the several sources.
   (b) We use the local frigid locker system where our meat is bought by the carcass and is then processed and frozen. Our dietitian orders entirely from that source, and they keep an abundance of different meats on hand.
3. We have a stores department under the control of a storekeeper, who, in our case is also the pharmacist. The dietitian requisitions her stock daily at a certain hour through the stores department.
4. The dietitian should not be expected to take charge of the stores because she and her staff have not time to arrange, unpack and record all the supplies needed. However, in addition to her daily supply she should have a small supply of extras in her kitchen for emergencies.

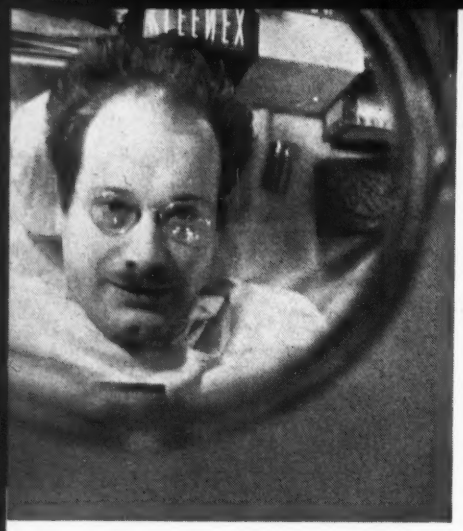
The idea of having the administrator do the buying and of placing the control of the storeroom with the storekeeper is perhaps not the custom in many small hospitals. But the system has many points in its favour.

The dietitian will have a great many ideas about foods, menus and costs which will prove interesting and valuable to the administrator. For instance she may serve cut beans, cut asparagus, etc., which are cheaper to buy than the whole vegetable. She may advise the purchase of "standard" qualities rather than "choice" or "fancy", because she knows from her teaching that many of these grades vary simply in size or uniformity, not in food value. She may prepare cost sheets from month to month, such as the cost of serving public ward meals, special nurses meals, staff meals, etc. This is of interest to the administrator, since it has a bearing on the wage schedules.

In this connection, one of the most interesting sheets is that showing the comparative costs of serving a top grade and a second grade item of the same commodity. For example, it costs one three-sixteenths of a cent more to serve a cup of coffee of high quality, yet many institutions use a second rate coffee which has been considered entirely from the standpoint of price. It is surely worth while to consider relative value rather than relative price, especially at times like these, when the qualities of commodities are constantly changing.

It is interesting to note that our

(*Concluded on page* 68)



Ward A, From the South-East Corner

By W. BEVERLEY BURWELL

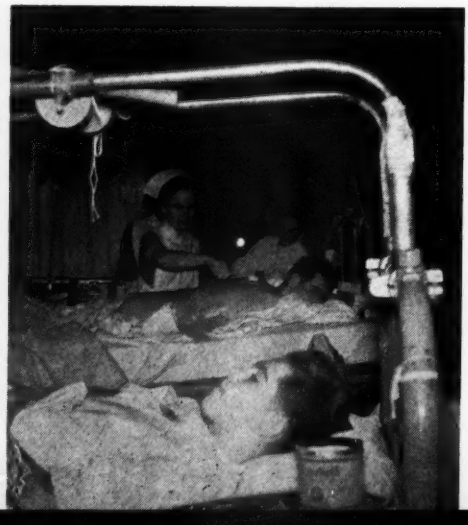
Editor's Note

Some men know how to make the best of any situation. Such is W. B. Burwell. Badly crippled for some years, he has been in hospital since last June, lying on his back following an operation on his spine. During that time, although unable to move his body, he kept up his hobby of photography, using his mirror, etc., as here described by himself. With the aid of a portable typewriter, this young man, born in China but educated here, has written his thesis for his Master's degree at the University of Toronto. A series of his photographs, of which these are but a few, was shown at the recent Salon of the Hart House Camera Club. Our readers will be pleased to know that Mr. Burwell is making a very satisfactory recovery.

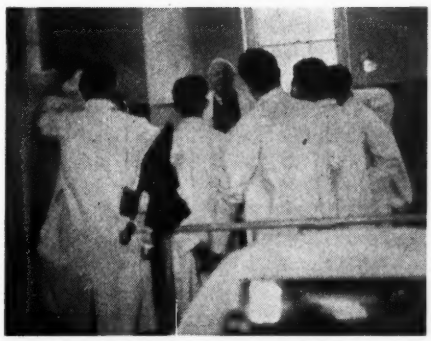
WHEN I started making pictures with a camera because it was faster and more accurate than drawing, I found that photography is the best of all possible hobbies. It can be an end in itself as well as a means of furthering other interests. Consequently, a camera has been my almost constant companion for years. When I came into the hospital, however, my camera was put away and all last summer I mourned its absence. Last fall I was able to have it brought in to me, and at once began making a record of the things I saw around me.

These pictures, although only a few of the many I have taken, give some idea of what I see and have seen from my corner, the south-east, of Ward A in the Toronto General Hospital. A number of them are askew. This was because it was only by tilting the camera that I was able to bring the subjects within my field of view, for I was in a plaster shell, and any kind of movement was difficult and inadvisable.

All exposures were hand-held—a tripod was obviously useless. So were filters. For shots taken in daylight, exposures of from one second to half a second were necessary, at f.4.5. or f.5.6. Occasionally in very bright light it was possible to use f.6.3. The light was carefully checked from time to time by means of a visual-extinction type of metre. The problem of camera movement was met by holding the camera, a Rolleicord Ia, upside down against the mirror fastened to the head of my bed. This proved successful in most cases, and was a help in focussing, which was done in the ground glass, since the Rollei is a reflex cam-



Top, Myself—Taken through the mirror.
Middle Left — Christmas morning on the ward. Christmas gifts are being distributed by the nurses and interns. My feet got in the way.
Lower Left—My neighbour performs his morning ablutions.
Lower Right—A sterile prep. being given. The white spot just above the patient was made by the hundred-watt bulb the nurse was using to illuminate her work.



Upper left and right—Two of the nurses on the ward.

Left—Dr. Roscoe Graham holds a clinic. I had a good deal of difficulty in getting this shot, as Dr. Graham moves a great deal when he talks, and dull light made an exposure of two seconds necessary.

Right—My view of the outside world, obtainable only through my mirror.

era. For flash shots a speed of 1/100 sec. was used, thus obviating the use of a support. For these pictures light was supplied by GE No. 7 photoflash bulbs, synchronized with the camera in a Kalart Micromatic Speed Flash. When taking pictures through the mirror, correction had to be made, when finding the picture in the ground glass, for the two lenses of the camera. This was not always successful, as the results show. Further, since the mirror was made from thick plate-glass, sharpness of the photographic image was virtually impossible, and in some cases distinct double images are visible.

Any account of these attempts at photography would be incomplete without mention of, and thanks for, the co-operation of the people around me. The whole business has been a very instructive and enjoyable extension of my hobby, and affords a record which I would not surrender for anything. It has also been the means of making a number of friends. Although much of what I have done seemed almost impossible before it was attempted, as soon as the problems were tackled they resolved themselves very simply. That was, perhaps, the most valuable lesson to be gained from the whole experiment.

Occupational Therapists in Britain

These Occupational Therapy graduates are now serving in British hospitals: Deborah Craig, Ruth Craig, Mary Clarke, Amy DesBrisay, Gertrude Ellis, Josephine Forbes, Dorothy Grant, Jean Hampson, Barbara Hope, Peggy Langley and Mary Wilson.

Marjorie McLeod, who graduated in Occupational Therapy at the University of Toronto in 1932, has been given a commission in the Royal Air Force. She is at present on active service as a cipher officer somewhere on the East Coast of England.

Physiotherapists on Active Service

Serving with the Royal Canadian Army Medical Corps are the following graduate physiotherapists: with overseas units—Ruth Carlyle, Muriel Clarke, Helen Gibson, Neville Hamilton, Kathleen Lake, Thelma Liberty, Bernice Nichol, Florence Peters, Marjorie Spence, Helen Marie Stevens, Thelma Stewart and Jean Sutherland. In Canada—Elsie Wait and E. Beryl Webster.

When a man becomes too big to take orders, he is too small to give them.

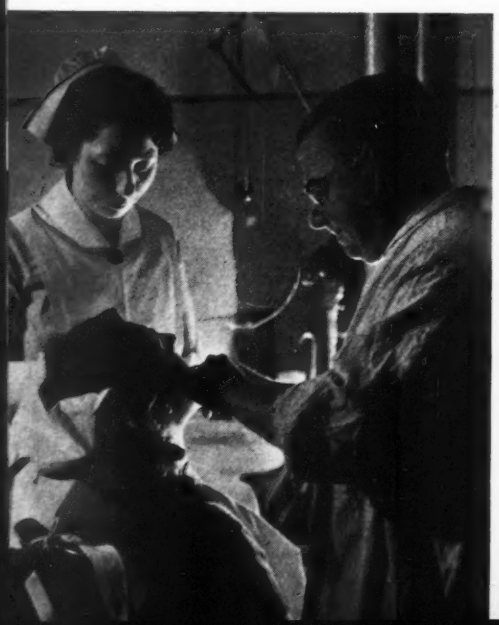
The Dental Department—an Essential Service in the Modern Hospital

A WELL organized dental department is an essential unit in the armamentarium of the up-to-date hospital. The relief of pain is naturally a primary function, but the detection of contributory oral infection in systemic disease will frequently hasten materially the recovery of the patient. Patients with fracture of the maxilla and mandible or requiring oral surgery would benefit by dental consultation; so would the pre-natal patient, the arthritic and both the medical and the dental student.

It was with the idea of presenting to both the hospital field and the dental profession an up-to-date "Manual on Dental Care and Dental Internships in Hospitals" that the American Hospital Association through its Council on Professional Practice sponsored the preparation of this 84-page book. The actual work was done by a joint committee representing the Canadian and American Dental Associations, the American Association of Dental Schools and other bodies. The nucleus committee was zoned in Toronto, under the chairmanship of Dr. Thomas Marsh, D.D.S. with Dr. Ralph G. Harris, D.D.S. as secretary. All of the committee, nucleus and corresponding, were dental surgeons except Geo. H. W. Lucas, M.A., Ph.D., of the Department of Pharmacology, University of Toronto; Dean R. O. Hurst, of the College of Pharmacy, University of Toronto; and R. C. Buerki, M.D., Philadelphia and Harvey Agnew, M.D., representing the Council on Professional Practice.

Thos. Marsh, D.D.S.
Chairman of Study Committee

Adequate equipment and efficient organization of the Department are stressed. As head of the department the ideal arrangement would be to have an oral surgeon in charge who has both a medical and a dental degree. Such director might have unrestricted activities in the care of dental and surgical malformations and lesions of the lower face. Otherwise the head of the department should be a dental surgeon, and the scope of the work referred to the department should depend upon whether or not he has had special training, and particularly in the surgical treatment of abnormalities and diseases of the face, mouth and jaws.



An increasing number of hospitals now have dental departments. The one shown here, at the T.W.H., was directed for 15 years prior to his enlistment by Dr. W. S. Madill, recently gazetted a Major in the C.D.C.

The relationship of the dental department to the other services is clearly set forth. It is stressed that routine regulations should be set up so that full advantage may be taken of the dental department without causing misunderstanding as to the relationship of the departments involved. The work of the dental intern is outlined, a suggested programme and regulations for the intern is given and there are sections on records, dental research and on the relationship of dental colleges to hospitals.

The appendix of the manual is particularly valuable. A complete check list of dental equipment required for a department is given. The committee found, after careful investigation, that the most representative and carefully prepared list extant is that of the Canadian Dental Corps, prepared by Col. F. M. Lott, Director of Dental Services of the Canadian Dental Corps, for the equipment of dental units in the Canadian armed forces.

An excellent dental formulary has been prepared and tested by a Formulary Committee including pharmacists and pharmacologists at the University of Toronto, and there is appended also a list of approved drugs. These were selected from replies listing favoured drugs received from dental clinics and hospitals throughout the United States and Canada, and has been revised to lay special stress upon official rather than proprietary preparations.

The manual is being sent to all American Hospital Association members and may be obtained by other hospitals at a nominal cost.

Ontario Hospital Care Plan Approved

The Plan for Hospital Care sponsored by the Ontario Hospital Association has been formally approved by the Board of Trustees of the American Hospital Association. Approved plans must conform to a high set of standards.

On February 21st the Plan had passed the 60,000 participant mark.

Miss Kathleen W. Ellis Appointed Emergency Nursing Adviser to C.N.A.

Important Recommendations by Nurses' Association

THE National Office in Montreal of the Canadian Nurses Association has announced the appointment of Miss Kathleen W. Ellis as emergency nursing adviser to the Association.

Miss Ellis graduated from Johns Hopkins Hospital School for Nurses, Baltimore, and later from Columbia University, New York. She is now Professor of Nursing at the University of Saskatchewan and Registrar of the Saskatchewan Registered Nurses' Association, and has been released temporarily to carry out a programme outlined in recommendations approved by the Canadian Nurses Association and designed to meet the wartime crisis in nursing service which has developed in Canada. As a former Director of Nursing at the Vancouver General Hospital and the Winnipeg General Hospital, Miss Ellis has a practical knowledge of hospital problems and community needs. A course in public health nursing taken at Bedford College, London University, and the Royal College of Nursing, London, England, gives her an understanding of the special requirements in public health, a field in which many nurses are now needed.

Shortage of Nurses

There is an acute shortage of specially qualified nurses to fill positions of responsibility in hospitals, schools of nursing and the public health field. Many specially skilled nurses are now on active service in military hospitals overseas and in Canada. It is most important that selected nurses be prepared to take their places; therefore a recommendation dealing with post-graduate courses is regarded as the most urgent of several formulated to meet the crisis.

It is hoped that there will be large enrolments for post-graduate courses in universities next fall, and that authorities in recognized schools will take immediate steps to select nurses to take special courses in administration, teaching or public health work. Such courses are now available at seven Canadian universities.

Hospitals and alumnae associations are urged to consider the possibility of providing bursaries and loans for promising nurses.

Miss Ellis stressed the fact that it would be "a serious matter for the public as well as for our profession if the standards of nursing are allowed to be endangered. The war has emphasized the value of advanced education in nursing, since so many specially prepared nurses have been selected for service overseas. This one fact alone would justify the long and difficult struggle to raise nursing standards."

Canadian Nurses Association Recommendations

The recommendations formulated by the Canadian Nurses Association cover the following points:

More use of post-graduate courses offered in universities by the enrolment of larger numbers of carefully selected nurses. The development of additional post-graduate courses to provide new technical skills as the need for these arises.

Improved conditions to make the profession more attractive to young women to whom nursing appeals as a patriotic service with unlimited opportunities which will continue after the present crisis is over. Some improvements suggested touch on shorter hours and more desirable living conditions.

Better professional status and higher remuneration for general duty nurses in hospitals.

Extension of education within hospitals and organizations, to improve the clinical teaching of less experienced head nurses and instructors.

The renewal of professional contacts with married and retired nurses through refresher courses and special enrolments to meet emergencies.

The establishment of a central preliminary school for nurses in certain key positions.

In reference to post-graduate courses, Miss Ellis pointed out that directors in schools of nursing are asked to assist selected nurses to make the necessary financial arrangements for such study. In addition to bursaries and loans, including those offered by the Canadian Nurses Association, it is earnestly hoped that aid from public funds will be granted to help meet the serious situation, which directly concerns the health of the people of Canada.

Move to Place Victoria Hospital, London, under Independent Board

A proposal to place Victoria Hospital, London, Ontario, under an independent commission similar to the arrangement under which Queen Alexandra Sanatorium at Byron is operated, will probably be placed before London voters as a by-law at the civic elections late this year.

It is felt that the hospital would enjoy greater private support in the form of endowments if its management were taken out of the field of municipal politics.

Are You Reclaiming Gauze?

The embargo by the British Board of Trade on the export of gauze and absorbent, and the possibility that the United States will not be able to spare sufficient of these commodities, makes it most important that every hospital conserve its supplies by every means possible. Hospitals are urged to use as little gauze and absorbent cotton as they possibly can. All gauze that can be reclaimed should be washed, sterilized and used a second time. Despite the sympathy of the Government with our civilian needs, the available supplies can only go so far and no farther. It is up to every last hospital and every person connected therewith to conserve their supplies as never before.

Obiter Dicta

Health Insurance Study Officially Announced

THE study of health insurance by the federal government is now officially authorized; the order-in-council is discussed elsewhere in this issue. Although Departmental studies have been under way for many months, and several bodies, including the Canadian Hospital Council and the Canadian Medical Association, have been called in consultation, not until now has the study been given the official recognition of the government.

It is a matter of congratulation that Dr. J. J. Heagerty has been named as permanent chairman of the Advisory Committee. It is doubtful if anyone in Ottawa has as extensive a knowledge of the problems of health insurance as Doctor Heagerty. The personnel of his Committee, all government officials except the honorary advisor on public health, Doctor Defries, indicates that the study committee will pay special attention to the actuarial, statistical and legal factors involved. The absence from this committee of representatives of the medical, nursing, hospital, dental, and other groups vitally interested does not mean that these bodies are being ignored. Representatives of these groups are now being given opportunity to prepare and present views and recommendations, and there is reason to hope that some of these groups will be represented on the Council, should a measure become law. The personnel of the Advisory Committee does indicate, however, that any measure developing is likely to be a government measure and, therefore, more likely to pass the House. The issuance of this order-in-council has settled, too, the question of whether the study of and plan for health insurance should be continued by the Department of Pensions and National Health, or should be undertaken by the Department of Labour as had been hinted.

Meanwhile the Canadian Hospital Council has been obtaining from its various member associations their views upon a number of questions submitted to them respecting the details of the possible legislation. Most of the associations have already submitted their recommendations. The Council will shortly integrate these opinions and will then be in a much more authoritative position to express the views of the hospital field to Doctor Heagerty and his Dominion advisors.

More Nursing Skill and Less Drugs

IN these interesting and somewhat strenuous days with ever increasing demands and increased pressure on life, there is a tendency to take short cuts in many things—even in recovery from illness and the restoration of health. The patient needs an operation, and wants to know exactly how many days will be required for the course of his illness and recovery. How soon will he return to his job? We can appreciate all this and we are most anxious that the acute stage of illness in any case should be brief, that human suffering be relieved. At the same time, we must not lose sight of the fact that permanent recovery from illness or disease requires time and sound treatment. Nature can be assisted, but will not permit her entire plan to be taken over by science. We know that stimulation by certain drugs will produce definite results; the use of narcotics will relieve pain; sedatives will produce a condition of relaxation and bring about rest of a kind that may be helpful. These responses, however, may be but temporary, and do not necessarily mean that the patient is on a completely safe course. They may but mask the underlying condition. Rest is necessary; rest we must have if restoration is to take place. But there are other means than the use of drugs by which this condition may be brought about.

Observation and nursing experience convince one that *more nursing skill and less narcotics and sedatives* would frequently assure as favourable and often more permanent results.

We are concerned first with the patient. From the point of view of one responsible for the administration of a nursing service, we feel that nursing measures consistently and skilfully employed would, in many cases, bring relief and comfort to the patient were they more fully appreciated by the physician responsible for the medical direction of the treatment. Upon asking the nurse in charge, have all the nursing measures in the treatment of the case been employed before beginning the administration of sedatives and narcotics, the answer frequently is that a q. 4 h. order for some favourite sedative has been left. So we proceed with the treatment on this basis, feeling a little discouraged in our attempt

to develop and maintain a skilful and sound nursing service.

We are concerned too, about the effect on the nurse. It is important that students learn early the unmistakable fact that nursing is not entirely made up of the taking of temperatures and the giving of pills; that knowledge, understanding and skill in nursing can be acquired through study and the application of nursing measures. During the early period of the student's experience, much time and effort is expended teaching the fundamentals of sound nursing principles. We find the teaching plan frequently upset and the students left seriously in doubt as to the importance of spending so much time and effort on nursing procedures when orders for drugs are forthcoming so generously, and before the efficacy of nursing procedures have been tested. The student is impressed with quick results. Nursing measures, the value of which in the care of the sick has long since been proven, are put aside as slow and unimportant. By hasty prescribing, the nurse misses in part her opportunity to acquire and fully appreciate nursing skill, and the patient is deprived of the full benefit and true value of skilled nursing care.

—Priscilla Campbell.

Tally Ho!

"THE more I see of the twentieth century, the more I envy those who lived in the eighteenth!" growled an academic friend at luncheon the other day.

"Then at least five per cent of the people were happy; now nobody is." Our philosophic friend made out quite a case for his viewpoint. Research worker, author, world renowned authority in one of the most ancient of pure sciences, he is quite convinced that the internal combustion engine has done infinitely more harm to humanity than good. Perverted to destruction, it has made total war possible. "England could not have been bombed by steam engines," he opined over his biscuits and milk. "A perusal of the scientific journals during the Napoleonic Wars reveals much less disturbance to normal scientific life and progress in those days." But, we pointed out, there were no radios in those days. "Thank heaven I haven't got a radio," he retorted. We reminded him of all the modern conveniences, the speeding up of transportation—"For what?" he interrupted. "The internal combustion engine lets you rush around so much that you drop dead before you're fifty. What we need is a Trans-Canada stage coach." "But think of the tailor-made cigarettes we have nowadays," someone said. "I don't smoke." "And of all the hot water at home for your bath," we added, hoping to trap him. But he sidestepped that one by romancing about always taking his bath cold. "Civilization has broken down, the world is committing suicide. In only one direction has the world really advanced in two hundred years, and that is in the field of medicine."

With all our blood and tears and sweat, not to mention taxes, most of us would still prefer to live to-day. Society has made distinct progress, particularly in helping the weak or the man who is down. Whether we are any happier than the hardy ones who survived long enough to be our ancestors, it is hard to say. After all, happiness is a very relative term. We cannot gainsay, however, that with all our education, our progress and our chrome-plated gadgets, we have made one awful mess of learning to live together as one world family. If we are going to save the reputation of the twentieth century from its backward-sighing critics, we must not only redouble our war effort but must plan for a peace that will indeed start a new order.

Mental Attitudes of Accident Victims

THE mental attitude that makes some otherwise good golfers almost invariably plop the ball into the stream on certain water hazards would seem to be reflected in the attitude of many workmen towards accidents. Writing in the *American Journal of Psychiatry,* Dr. Alexander Adler of Boston reported that 23% of a group of 100 Massachusetts compensation cases had a fatalistic idea that they were sure to be unlucky. In a test on soldiers quoted by Dr. Adler, half of the soldiers on a cross-country ride were told that a certain difficult ditch was to be crossed; the other half were not so informed. Of those who fell in the ditch, three-fourths were from among those who had been warned. It was found that nearly 20% of the workmen liked to be pampered and were quite happy while being nursed after injury. Over 13% had a revengeful attitude. In a parallel European group 56% had a revengeful attitude and only 6% craved to be pampered. There 10% had the "unlucky" viewpoint.

This anticipation of disaster or of failure may lead to a subconscious acceptance of the inevitability of an accident, which a less fatalistic viewpoint might have led the victim to avoid by a more alert observance of safety observances. The experiment of the soldiers and the ditch would support this view.

At the same time there is a possibility that certain individuals are naturally clumsy, or slow in their protective reactions, or not mentally alert and so, by experience, have come to realize that repeated accidents will always be their lot. They may realize the effect without fully appreciating that the actual cause lies within themselves.

All of which leads one to wonder why it is that the writer is always the one who draws commiseration on a fishing trip. Everyone else catches fish galore, but never the writer. Perhaps it is a mental certainty of failure, which we vainly try to overcome with fresh optimism, but which may be transmitted as a delicate electric impulse down the wet line to warn the prey; on the other hand it is more likely that we don't know how to fish intelligently.

With the Hospitals in Britain

By "LONDONER"

C. E. A. Bedwell

Dear Mr. Editor,

Reading "America Organizes Medicine" by Dr. Michael Davis, (Harper & Bros., New York, 1941), I notice his commendation of Canada's organization of hospital services for rural areas. It is a problem to be found in all the Dominions and we have it on a smaller scale at home. It is engaging some attention at the present time, since it must be admitted that the small country hospital is not always, from the point of view of efficiency, a strong representative of the voluntary systems. On the other hand its individualistic vigour, amounting almost to pugnacity, when proposals are made to co-ordinate its activities with others, is generally in evidence. War conditions are affecting the position indirectly as well as directly. They have taken a number of the population, including a high proportion of women and children, into the rural areas. Local authorities have been obliged to develop their public health services, especially maternity and child welfare, to meet the needs. Around the big cities noble mansions are now occupied as delightful maternity homes. The migration of population has had its effect upon the hospital service in these rural areas. The Ministry of Health's policy has been to encourage the voluntary hospitals to receive these patients so far as possible. Nevertheless there has been an additional demand upon the local authority's hospital, generally under the poor law instead of the public health committee, as is more general in the urban areas.

Hospital Centres

These two types of provision for the health of the people illustrate one of the main problems confronting us as well as the people of the United States and other countries. Dr. Michael is a persuasive advocate of the proposition that the *hospital should be a health centre* from which would radiate all activities affecting the health of the people, including education upon hygiene, and other matters comprised under the description of "preventive medicine". From the medical centre, in his view, would be sent out the physicians to undertake a domiciliary medical service. Dr. Davis advocates this on the sound medical basis that continuity of attention is thus provided for the patient. This seems to be the principle upon which the two points of view meet.

The Place of the Rural Hospital in a Health Programme

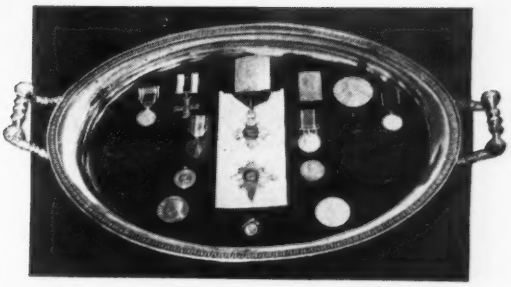
The antithesis is represented in this country by the British Medical Association and P. E. P. (Political and Economic Planning). They would regard the *family practitioner as the foundation* of the organization for the care of the health of the people, while endeavouring to secure that as and when necessary he should maintain his care of the patient when he goes into hospital. The question does not arise in many of the rural areas where the staff of the hospitals is provided by local general practitioners. It arises through lay public opinion demanding a specialist and so the patient with the necessary means goes to the neighbouring town, or even to London or other important centres, to obtain it. On the whole the ordinary hospital patient is sent to receive such specialist's advice as he may need, though it is suggested that he sometimes fails to obtain it. It may be that the dwindling middle class is the one which has suffered to some extent in the course of these arrangements as neither completely fits his circumstances.

Yardsticks of Service

The fundamental question which underlies the position of these small hospitals in rural areas is whether they are efficient. No one doubts the zeal and goodwill of those responsible, but sometimes questions arise, perhaps without finding expression, about their efficiency. There is nothing in this country like the efforts which have been made in the United States to evaluate the service rendered to the patients. The visitors who once a year go round under the auspices of King Edward's Hospital Fund are perhaps the nearest approach to it, though the surveys made by the Ministry of Health have provided a wealth of information primarily based upon a conception of the standard and extent of hospital service required in a given area. "Yardsticks of service" such as Dr. Michael Davis describes, would hardly be taken seriously in many medical gatherings. The visitors of King Edward's Hospital Fund, one medical and one lay, are primarily concerned with ensuring that the Fund is getting good value for its grants, though in recent years they have given attention to such practical questions as the hours at which patients are awakened. The tendency in other directions is to develop something in the nature of an inspectorate, such as is familiar in dealing with educational institutions, and this may be one of the activities assigned to the Regional Councils organized under the auspices of the Nuffield Trustees.

The general tendency would seem to be that the hospitals in rural areas will be devoted to work undertaken by general practitioners, while specialized services will be rendered in the urban centres, though in this connection there may be some collaboration among local authorities, as there is already in the provision of hospitals for infectious diseases. At the same time the health centre is becoming a recognized development of the work of local health centres, and has its own place in the community quite apart from the hospital.

Medals Presented to University at Banting Memorial Service



Dean C. J. Mackenzie Gives Memorial Address

"A great Canadian, a distinguished scientist, a gallant soldier", was the description of Sir Frederick Banting by Dean C. J. Mackenzie, acting president of the National Research Council of Canada and Dean of Engineering at the University of Saskatchewan, in delivering the first Banting Memorial Lecture at a memorial service in Convocation Hall, University of Toronto on February 20th.

Marking the first anniversary of the tragic death of Sir Frederick Banting in a lonely forest in Newfoundland when his bomber plane crashed on its way to England, a distinguished audience gathered at Convocation Hall to pay honour to his memory.

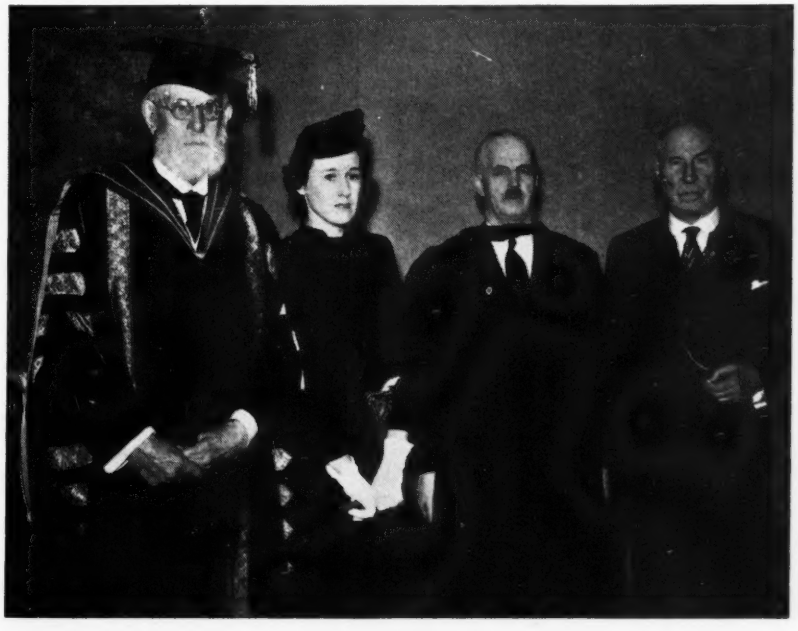
Leaders in medicine, in other sciences, in the university field, in art and in industry were present, as were also many who owed their lives to his discovery. Among those present were his co-workers, Professor J. B. Collip, now of McGill University, and Professor C. H. Best, now his successor in the Banting-Best Chair of Research.

A feature of the service was the presentation to the University by Lady Banting of the medals and prizes awarded to her late husband during his lifetime. In accepting the gift from Lady Banting, who is now enrolled as a student in the medical course, Chancellor Mulock said in referring to the decorations: "May they ever prove an urge to succeeding students not to leave Dr. Banting a lone hero in his university's Valhalla."

In his address Dean Mackenzie referred to his close association with Sir Frederick in the work of the National Research Council: "He scaled more peaks than most men, but he also knew more of disappointment, despair and loneliness." In his tribute to the great leader in science he painted a picture of a man "who, so simple were his ambitions that neither the praise of the multitude nor the lure of wealth, which he turned away, could divert him from his great passion for research. . . . It was a passion which was still burning as fiercely and as purely when he started his last journey as in those distant days of the early twenties. . . . When the final accounting is made, I feel sure he will have at least three great contributions to his credit," said Dean Mackenzie. "To the multitude his name will, of course, suggest insulin. To the better informed it may well be that the impetus his work gave to medical research activity in this country, and later his work in organizing the medical research laboratories and workers co-operatively in Canada, will appear to be of even greater and more enduring importance."

In his opening remarks, President H. J. Cody stated that it is proposed in years to come, on the anniversary of Sir Frederick's death, to arrange for the delivery of a lecture on the broad subject of research, more particularly medical research.

Chancellor Sir William Mulock, Lady Banting, Dean C. J. Mackenzie and Rev. H. J. Cody, President of the University.



Accounting Institute Dates Changed

The dates of the Second Annual Institute on Hospital Accounting, sponsored by the American Hospital Association at Indiana University, have been changed to June 22 to 27. The programme will include lectures on admissions, credits and collections, uniform accounting and apportionment of costs, and will feature round-table discussions, led by the lecturers.

Here and There

By the EDITOR

"The Church of the Most Holy Damn"

Those Canadian trainmen who devised a penny fine for members who so far forgot themselves as to *swear,* will be grieved to learn that they are by no means the "cussingest" people in these parts. Their record of $9.56 for one trip has been made slightly ridiculous by the good folk of La Guayra, Venezuela, according to an item noted in *Hospital Topics.*

In the port of that city stands a church, "Iglesia de la Santisima Carramba" or "The Church of the Most Holy Damn". This church was built entirely from fines collected for voluble bad temper. The idea was the brain-child of a local parish priest, and whether it cured his flock of profanity or not, no doubt it made them a little more careful and built a church to boot.

On one occasion a crew of longshoremen were unloading a freighter, when a cargo of molasses exploded and spattered them from head to foot. They were, well, *annoyed*—to the tune of one handsome baptismal font. Temperamental, these Spaniards.

* * *

Our American Friends Were Asking

We talked more than hospital "shop" at the regular midwinter conference in Chicago last month of the presidents and secretaries of hospital associations. It was just after the sensational defeat of Mr. Meighen, and the American papers far and wide had headlined Mr. Hepburn's alleged tactless and unneighbourly slur at the American Navy. "Who is this Hepburn anyway?" "Does he speak for the other Canadians?" "Is he an authority on naval strategy?"

In between times, too, we were kept busy explaining that the well-fed students at the University of Montreal who hysterically broke windows and howled anti-conscription slogans, while heroic students of other universities crashed or drowned or died in swamps or on the burning desert that such men might still enjoy liberty, by no means represented the opinion of decent self-respecting Canadians, English or French speaking. The anti-British, anti-war sections of the American press naturally featured this episode, as, we presume, did the Nazi press.

The whole conscription plebescite issue puzzled the Americans. They adopted selective conscription in the last war and wouldn't consider any other system as just. "Are there any people in Canada foolish enough to think that we can win this war by waiting until the German fleet is anchored in the St. Lawrence?" we were asked. We explained that some 400,000 people, from all provinces, had already voluntarily signed up. They asked a lot of questions about why this pledge was ever given and why such opposition in certain quarters. However, as this journal endeavours to be non-partisan, we must leave our American friends still wondering.

* * *

Virtue for Vice

This pious and wholly commendable slogan adorned the long-sophisticated corridors of one of our eastern medical schools last month. Any hope that this might herald a movement by the S.C.M. or the Y.M.C.A. to tame down the legendary glamorous life of the medical student (long since subdued by the C.O.T.C.) faded with the realization that the undergraduate elections were on, and that a certain Mr. Virtue was running for Vice-president.

* * *

The C.I.O. Strike at Kirkland Lake

The Kirkland Lake strike has been called off, and it would appear that the C.I.O. did not obtain the recognition which it had anticipated. In view of the pressure that has been put upon employees of hospitals in various centres to form C.I.O. units, some details relating to the situation as jointly prepared by the Kirkland Lake mines may be of interest.

On January 12th, 1942, two months after the strike was called, there were 1875 men still on the payroll and 1830 still on strike. Of the British born, 881 out of 2604 were still on strike (1723 at work) and, of the foreign born, 949 out of 1101 were still on strike (152 at work). In other words 92 per cent of the men at work were British born and 86 per cent of the foreign born were still on strike. It was further stated that the majority of the foreign-born were unnaturalized and many of them enemy aliens.

The local Union is a part of the International Union of Mine, Mill and Smelter Workers. Addressing a Labour Day audience at Kirkland Lake, the President of the International Union, Reid Robinson, stated that he and his group were unequivocally opposed to the Lease-Lend and Conscription Bills in the United States. In the *C.I.O. News* of June 23rd, 1941, Robinson and some of the other Executives in this International Union made statements to the effect that they did not want any part in any fight abroad. Various anti-war and anti-British activities were cited in a quoted brief to the Minister of Labour. It was further shown that during the first six months of 1941, *nearly 87 per cent of the time lost through strikes in Canada were in industries where the union involved was affiliated with the C.I.O. The workers involved in such strikes represented only ¼% of all Canadian industrial workers!*

As for the strike vote, the Minister of Labour was quoted as declaring that the strike vote was illegal. Employees must not cease work when an application for a Board is pending. An application was pending in this case and the Minister on the day before the strike was taken had asked the Union to send a representative to Ottawa and to cancel the proposed vote. It was further revealed that, although the clerical and technical staffs were disfranchised for the vote, 573 aliens, including 185 enemy aliens, were permitted to vote. In addition 131 naturalized aliens of enemy origin voted.

With The Auxiliaries

From Saskatchewan Reports . . .

Victorian Hospital Auxiliary at Central Butte has donated a surgical bed and two mattresses, curtains, blinds, electric fans and canned fruit and vegetables to the hospital in the past year.

Rosthern Hospital Guild keeps the hospital supplied with linens and helps with the upkeep by supplying blinds, linoleum, dishes, etc. They have also during the last year purchased a sterilizer for the hospital.

Assiniboia Union Hospital Aid has as its crowning achievement the purchase of an X-ray machine, completely paid for in two years.

Davidson Union Hospital Aid has supplied the hospital with linens, two screens and an easy chair for the maternity ward, and an electric toaster as a Christmas present for the staff.

Gull Lake Union Hospital Aid held a fruit and vegetables drive for the hospital. Fruits, flowers and gifts were sent to patients and staff at Christmas. Twelve patient gowns, table cloths and napkins were also donated by the Auxiliary.

Wadena Union Hospital Auxiliary has had a very successful year. The money raised by the Auxiliary this year is being held in reserve, as an addition to the hospital is being considered, and it is felt that the money could be better spent later on. Blankets have been donated to the Regina Red Cross.

Gravelbourg Ladies Guild has organized a Patients' Library with 250 books, five magazines, two Digests, two daily and three weekly papers and two subscriptions to THE CANADIAN HOSPITAL. About eight hundred dollars was raised through bridges and tag days and the collection of tin foil.

Humboldt Auxiliary has presented the hospital with an incubator for the nursery and helped to re-furnish two private rooms. An obstetrical table for the case-room has been ordered. The Auxiliary celebrated National Hospital Day last year with a tea.

With the New Brunswick Auxiliaries

Mrs. Carl V. Belyea, provincial editor of the New Brunswick Auxiliaries, has sent us the following reports:

St. Joseph's Hospital Auxiliary, Saint John

Donors of blood are being sought among the High School boys for donations to the Plasma Bank, which the Auxiliary is sponsoring for the hospital. Plans were completed for the post-Easter tea to be held on April 18th. Due to the restrictions on the use of sugar, the usual candy sale will be replaced by a handkerchief corner.

General and Tuberculosis Hospital Aid, Saint John

The Auxiliary reported an increase in membership of 131 in the last year, bringing the total to 1,176.

An incubator for immature babies and payment for 28 blood transfusions were among the expenditures for the past year. Reports were made on the weekly visits to the hospitals, the gifts of books and prizes to the nurses and donations made to the Victorian Order of Nurses and to the Red Cross blood donors clinic.

One much-appreciated service which the Aid gives the General Hospital is the collection of medicine bottles, which has greatly reduced the Hospital's expenditure for this item.

The emergency fund has been used to buy $400 in war savings certificates. The fund is also used for travelling

(*Continued on page* 68)

Noise Disturbance in Hospitals

A Series

4. Noisy Windows

Windows frequently are the source of several forms of noise disturbance.

Blinds may flap wildly if the upper half of the window be lowered. Sometimes the sash becomes shrunken and fits loosely in its frame. This is particularly disturbing at night, when gusts of wind rattle the window against its frame. Where drop transoms are in use, as in many old hospitals, these sometimes blow open with a resounding crash, if they have not been properly secured when closed.

Irish patients will be sure that they hear the Banshees if the weatherstripping, copper flashing or nearby eavestrough or down-drain are so constructed that they are set into vibration by winds from certain quarters.

With the possible exception of this last-mentioned case, the various sources of noise about windows can be corrected without much difficulty. As the elimination of unnecessary noise is so vital to the recovery and comfort of patients, all windows should be carefully checked to eliminate as far as possible every such source of annoyance.

Canadian Intern Board Reports Placement of Nearly all Applicants

Demand for Interns Exceeds Supply

The Canadian Intern Board, an organization representing the Canadian Association of Medical Students and Interns and the Canadian Hospital Council, operating with the assistance of the Department of Hospital Service of the Canadian Medical Association, has made its report on the allocation of interns to hospitals for the current year.

The analysis covers the allocation of students from Queen's University, the University of Toronto, the University of Western Ontario and the University of Alberta, with smaller groups from Dalhousie University, Laval University, the University of Manitoba and the University of Montreal, where undergraduate internships prevail.

Of 196 students who took advantage of the services of the Canadian Intern Board, 72% were placed in their first choice hospital, 15% in their second choice hospital and 6% in their third choice hospital. Only 48 were without positions at the time of the original allotment on December 10th, and to these a list of the hospitals still requiring interns has been sent.

From the viewpoint of the hospitals the results were good, although a fair number of the hospitals were not able to obtain their quotas. This was due to a shortage of available interns, a difficulty which is tending to increase rather than the reverse.

Hospitals dealt with	37
Hospital with quotas filled	12
Hospitals with quota 66% filled	13
Others	12
Total number of internships available (Based on quotas submitted to the C.I.B.)	264
Total number of available applicants (Based on number of applications to the C.I.B.)	196
Shortage	68

The shortage of available interns caused the board difficulties, because a few hospitals decided to waive their expressed intention of co-operating with the C.I.B., and made direct negotiations with students, in the hope that they at least would not be affected by the obvious shortage. As in past years, however, this policy in several known cases ultimately meant that these hospitals received fewer interns than they otherwise would have had. "Because of the full measure of co-operation received from most of those with whom we dealt, the difficulties which we had previously anticipated, due to wartime conditions and altered school and hospital schedules, have not rendered our services less efficient than in previous years."

The Secretary of the Board, Mr. J. G. Mickler and the Assistant Secretary, Mr. M. J. O'Brien have urged that "in order to obviate possible future misunderstandings, we might request that next year all concerned read more carefully the pamphlets and other literature distributed for their guidance."

In his review the Secretary refers to "those few students for whom we obtained the desired appointments, but who have for various reasons chosen to disregard the allocations of the Board, despite our strong disapproval. It is noted that most of these men are students at two certain schools."

In view of the many difficulties associated with placing interns this year, and the varying dates at which interns will be available, the achievement of the Canadian Intern Board in having practically all of the students assigned before Christmas, to the mutual satisfaction of both students and hospitals, is a very creditable one indeed.

Proposal for Nation-wide Hospitalization Plan in U.S.A. Discussed at Mid-Year Meeting

At the 11th Mid-year Conference of presidents and secretaries of state and hospital associations held in Chicago on February 13-14, the chief point of discussion was the recent proposal of Washington to set up a nation-wide hospital care plan under Government auspices for those in the lower income brackets.

This movement was launched by the President in his budget message to Congress on January 7th, and has since been considered by the Hospital Service Plan Commission of the A.H.A. in conference with the Social Security Board. The latter stated that it was their intention to recommend to Congress that the Social Security provisions be extended to include (a) Disability Allowances, equal in amount and duration to the present Unemployment Allowances, for periods of sickness, and (b) additional allowances of $3 per day as a cash indemnity to the worker when either he or his dependents would be hospitalized. The money would be paid to the worker, who might assign or authorize the payment of the cash directly to the hospital. Mental conditions and tuberculosis would probably be excluded. Maternity care may be included. Information as to waiting period and duration of hospitalization have not been given. The plan would probably be universal and compulsory for those people who held Social Security Numbers. All employed persons, old-age indigents and survivors with social security numbers, and their family members or dependants, would probably be eligible for hospitalization benefits.

The tax on the payroll for disability allowances and hospitalization would probably amount to one per cent altogether for the employee and a similar amount for the employer. Half of each contribution would be for each of the two benefits.

"When thinning ice
and lace-like snow
Give sign
that Spring is near."

This development is of serious importance to the hospital care plans, which now cover, to the extent of nearly nine million, the people in the low income groups. It was pointed out to the Social Security Board that the entrance of the Government into hospitalization benefits would also tend to destroy the voluntary principle in hospital service and to lower quality because of political and impersonal control.

The proponents of the hospital care plans and of the voluntary hospitals spoke very strongly against the measure. Stated one: "The future of the voluntary hospitals in the United States hangs in the balance. The adoption of this plan would be a great disaster." Another asked "Are voluntary hospitals ready to commit suicide? Are they ready to admit that they have failed in meeting the needs of the people?" Others took the view that the development of such a plan was a natural sequence in the evolution of our social structure and that the hospitals should sit in with the Government to ensure that the interests of the people and of the hospitals would be safeguarded.

Voluntary hospitals were called upon to thoroughly study their system to see if there were any weaknesses that would warrant such a measure. The Hospital Service Plan Commission of the Board of Trustees spent considerable time on this subject and it is understood that further conferences will be held with Washington on the principles involved in and the various details of the proposed plan.

1,000,000 Members in 90 Days

At the Midwinter Conference of the American Hospital Association in Chicago it was reported that one million new members had been enrolled in the 68 approved Blue Cross Hospitals plans during the previous 90 days. It was further stated that these plans had added two and a half million new members in 1941.

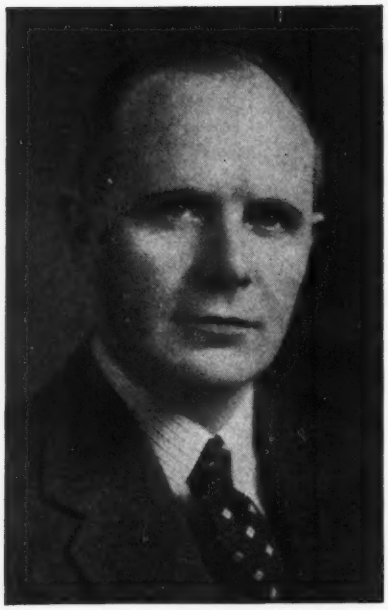
Equipment for Emergency Hospital Wanted

An appeal has been issued by Dr. N. D. C. MacKinnon, medical health officer of Trail, B.C., for beds, blankets, linen and other equipment which could be made available for an emergency hospital, should Trail be subjected to an actual air-raid.

Although no material will be called for unless the town experiences an actual local emergency, members of the Canadian Women's Training Corps have made a canvass of the homes to inspect and list any of the equipment which the housewives offer for use.

Vancouver Hospital Prepared

Arrangements have been made to move some of the children of the Crippled Children's Hospital, Vancouver, to private homes in case of an air-raid. This will release 20 beds for civilian casualties.



Frederick A. Logan, M.B.

Dr. Frederick A. Logan, assistant superintendent medical of the Toronto General Hospital, died suddenly from a coronary thrombosis on February 8th at the age of 47 years. Dr. Logan was born in Niagara Falls and had graduated in arts and medicine at the University of Toronto. An undergraduate during the previous Great War, he had served in the Royal Navy as surgeon probationer on a destroyer. After practising for a number of years in Lindsay, Ont., he took over the medical administration of the Toronto General Hospital in 1938, succeeding Dr. E. A. Gray, who, incidentally, had succumbed suddenly to the same condition. His widow was formerly Miss Florence Weir, a graduate of the Toronto Western Hospital.

Dr. Logan, during his four years of administrative work, had already shown intense interest in the advancement of hospital welfare. A member of the Editorial Board of *The Canadian Hospital,* he had proved most helpful and co-operative. He was also representative of the Canadian Hospital Council on the Canadian Intern Board. Deeply interested in child welfare, he was a past president of the Ontario Society for Crippled Children. He had also been a president of the Lindsay Rotary Club.

To his father, his widow and family and to his brothers and sisters is extended the deep sympathy of his many hospital friends.

Ann Baillie, Reg. N.

Miss Ann Baillie, for 18 years superintendent of nurses at Kingston General Hospital, died on February 5th, following a lengthy illness.

Born in Pictou County, N.S., Miss Baillie took her nursing training at the hospital to which she returned years later as superintendent of nurses, graduating in 1911. During the World War she served overseas with great distinction, and was mentioned in dispatches for bravery and devotion to duty. She was in charge of operating rooms from 1915 to 1919, first at No. 5 Canadian Stationary Hospital in Cairo, Egypt, and later at the Canadian General Hospital No. 7, in France. She was awarded the Royal Red Cross decoration in recognition of her "outstanding service".

After returning from overseas Miss Baillie did post graduate work at the General Hospital, Scranton, Pa., and at the New York Lying-In Hospital.

She was appointed superintendent of nurses at the Kingston General Hospital in 1924, and held that position until her death.

* * *

William D. Cutter, M.D.

Doctor William Cutter, secretary of the Council on Medical Education and Hospitals of the American Medical Association, died on January 22nd, 1942, at the age of 63 years. His death followed an attack of coronary thrombosis. In his official capacity Dr. Cutter had a very extensive knowledge of Canadian hospitals and their medical staffs, for the American Medical Association for years has kept a record of the interns in Canadian hospitals, and of major staff appointments and changes. Prior to that function being taken on by the Canadian Medical Association, Dr. Cutter's department approved Canadian hospitals for internship. This same Council on Medical Education and Hospitals has for years graded and checked medical schools of both the United States and Canada.

Much of the success of the valuable work done by the Council on Medical Education and Hospitals has been attributed to Doctor Cutter's devotion, his enthusiasm and his consummate tact. A graduate of Yale and of Johns Hopkins, he was a former professor on the staff of the University of Georgia School of Medicine, Dean of the New York Post-Graduate Medical School and Dean of the School of Medicine of the University of Southern California.

At the mid-winter conference in Chicago, of a number of educational and licensing organizations being planned by Dr. Cutter at the time of his death, a special memorial service was held, on which occasion heart-felt tributes were paid by Ray Lyman Wilbur, Charles Gordon Heyd and the Rev. Alphonse M. Schwitalla.

All Construction over $5,000 to be Licensed

A new Order-In-Council, Number 660, effective 1st February, requires any person constructing a building, remodelling or making repairs to a building or installing equipment or "anyone who contemplates any such project" to obtain a license from the Construction Controller, C. Blake Jackson, if the over all cost of the work exceeds $5,000.

The only exemptions are Federal Government projects and projects wholly financed by the Federal Government. All other previous exemptions, including private dwellings, hospitals, schools and churches have been eliminated.

Moreover the new Order prohibits unlicensed installation of any machinery or equipment costing more than $5,000 to instal. This is obligatory even though the machinery itself may cost less than $5,000, if the installation costs raise the total project over the $5,000 mark.

The Controller is authorized to reduce this $5,000 limit if the present shortage of materials or labour makes it necessary. The Controller may order the substitution of materials or alter the method of construction of any building, and the possession of a license will not entitle the holder to any priority in obtaining materials.

Recognition of the need of a hospital connection for every practitioner should be a controlling factor in all community hospital organization.

—*S. S. Goldwater, M.D.*

Simple Ways of Effecting Economies In Hospital Operation

At Saint John General Hospital

DR. S. R. D. Hewitt, Superintendent of the Saint John General Hospital, Saint John, N.B., sends us these helpful suggestions:

"The following ways of effecting economy may be of interest to your readers in their efforts to assist in the national economy.

Instrument Soap

For a considerable number of years, quite a period before the outbreak of war, we have been using what we call an "instrument soap" for the purpose of cleaning surgical instruments, basins and other utensils in the operating rooms, case rooms and other places in the hospital. This replaced, and does replace, the use of surgical green soap formerly used for that purpose, and has resulted, of course, in a material saving economically and in the total of our requirements for the latter.

When we first started it, our instrument soap cost us about one cent per gallon to produce, or a fraction above that, but since the cost of the soap we use has gone up, so has the cost for our instrument soap. Our formula is as follows:

1 *lb. laundry soap chips at* 10¾ *cents per lb.*

5 *gallons of water*

This is prepared in our stock room in a five-gallon crock, utilizing steam for the necessary preparation. The cost of the steam is infinitesimal. The end result when cool is a gelatinous soap which is very efficacious, and you will see, very cheap, the cost being, as issued, slightly over two cents per gallon. If necessary a soda can be added to it, although it is not essential.

Re-claiming Gauze

We have been re-claiming gauze ever since the day on which the war started, and this has been a very useful, economical measure from our own standpoint.

Bandages

We re-claim all bandages and do not permit them to be cut off. We have recently introduced triangular bandages, which will eliminate the use of roller bandages to a material degree.

Changing Bed Linen

At the outbreak of war we changed our practices, which has resulted in a saving in this direction.

Use of Tin Cans

Since the outbreak of war, and having in mind the problems of obtaining enamelware and, of course, the increase in price for such, we began using the cans obtained from canned vegetables, etc., in place of enamel of a similar size for sterilizing dressings and absorbent cotton, and found they stand up to sterilization very well, in fact we have been unable to use all the cans we get from this source.

Hypodermic and Larger Size Needles

About three years ago we purchased one of the outfits sold by the Hospital Supply Corporation of Chicago, which cost us some $37 or $38, and this has worked out decidedly economically and has improved our efficiency tremendously. This apparatus is located in our Work Room and all hypodermic and other needles which become blunt or bent or need re-sharpening or change in bevel, are turned in to the Work Room in exchange and these are again reconditioned promptly and efficiently.

Laundry Soap Bags

For years we have been utilizing these for various purposes in the hospital—for chef's aprons, caps, and for bags of various sorts for holding and sterilizing procedures.

Bard-Parker and other Blades

For many years we have had these re-sharpened, with the result that we have reduced fairly markedly the amount of purchases necessary, and this in turn has resulted in economy with no reduction in efficiency.

Correspondence

In all instances, when replying to communications, instead of using a piece of copying paper, we use the back of the letter received on which to make a copy of our reply. This, as you see, serves two purposes:

(1) It saves a sheet of paper, and,

(2) It saves filing space, and, incidentally, the purchase of additional filing cabinets.

There are some occasions, of course, when more than one sheet is needed for a reply, but in all instances the incoming letter provides one sheet, and for most letters is all that is needed.

Medicine Bottles

We have enlisted the co-operation of the Women's Hospital Aid in keeping and collecting for us regular medicine bottles. In this, as in all other matters, the Aid is most helpful, and not only have we found it unnecessary to buy any bottles this year, but we have enough so far to run us for three or four months, and I have no doubt but that they will keep us supplied with our needs, with little or no purchases necessary.

Subsidies

With the removal of the price ceiling on room rates, the question arose, "Would this prevent hospitals from obtaining the advantage of fixed prices on imported articles, subsidized by the government if necessary?" As we go to press, a verbal ruling has been received by the Canadian Hospital Council that the price of articles imported in a finished or a partially finished state and *sold in stores to the public* is to come under the price ceiling; otherwise, not so. This would mean that thermometers, gauze, etc., must be sold to hospitals at the price prevailing last autumn, but that the price of imported sterilizers, operating lights, etc., not being subsidized, would vary with American or British prices.

Rubbing Alcohol not Affected by Alcohol Control Order

Control measures affecting denatured alcohol and specially denatured alcohol were announced in the *Canada Gazette* of February 14th. This is Order No. C.C. 7 of the Controller of Chemicals, (J. D. Lorimer) of the Department of Munitions and Supply, and has been approved by Mr. R. C. Berkinshaw, Chairman of the Wartime Industries Control Board.

The Order requires that any person buying denatured alcohol from a maker of denatured alcohol must be licensed by the Controller of Chemicals. No maker of denatured alcohol shall sell to any person unless such person is the holder of a license. Moreover, except under certain circumstances specifically outlined, no person shall obtain or have in his possession or control an amount of alcohol greater than such person's normal requirements for one month.

In a communication to the Canadian Hospital Council from Mr. H. M. Sunderland, executive assistant to the Controller of Chemicals, dated February 23rd, it is stated:

"The order in question refers for the time being at least only to wholly denatured alcohol or alcoholic anti-freeze. Purchases of specially denatured alcohol, that is formulas SDAG No. 1A to 1M are already covered by permit and report through the Department of Excise, as you know.

"Accordingly, under C.C. Order No. 7, only those hospitals who are purchasing wholly denatured alcohol or alcoholic anti-freeze direct from a distiller will require a permit issued by this office. If they are purchasing through a jobber they will not require a permit since the jobber has his permit and reports his sales."

Radio Licenses in Hospitals Clarified

One of the (few) consolations for an illness is the fact that you can listen to your favourite radio programme without nagging thoughts of a $2.50 license fee—if you go to the right hospital.

Mr. Walter A. Rush, Controller or Radio, has clarified the situation with respect to radios in hospitals. *One free license will cover any number of sets owned by the hospital and operated for the gratuitous entertainment of the patients.* However, if the hospital owns sets which are rented to patients, such sets must be covered by separate Private Receiving Station Licenses at the fee of $2.50 each. A separate license is required for each radio in the residences and elsewhere when owned or used by the hospital personnel. When patients bring their own radios into hospital with them, the Superintendent is expected to make sure that every such set is covered by the necessary Private Receiving Station License. It is also the hospital's responsibility to see that radios rented from dealers on a per diem basis for the use of patients are licensed.

Applications for free licenses to cover sets owned by the hospital and operated for the entertainment of the patients must be addressed to Walter A. Rush, Controller of Radio, Department of Transport, Ottawa.

This should leave everyone happy —except perhaps those nurses, interns, etc., to whom $2.50 is still $2.50. For them the solution might be to find something to do on the wards, within easy earshot of Charlie McCarthy.

Hospital Staff Appointments Being Protected in Regina

The policy being adopted by the medical staffs of the two Regina hospitals to protect the hospital appointments of doctors who have enlisted was supported recently, when a request that a doctor, lately moved into town from a rural community, be added to the staff of one of the hospitals was turned down.

This policy was adopted by the two hospitals early in the war, and has been carefully followed, as there is a general feeling among both the medical staffs and the hospital administrators that the positions of the 25 Regina doctors who have enlisted and left the city should be protected.

There are two extenuating circumstances by which a doctor could be added to the hospital staffs:

1. Where a doctor has enlisted and has brought another doctor into Regina for the specific purpose of carrying on his practice, such doctor would be recommended for hospital staff membership;

2. Where it can be shown that by enlisting a doctor has deprived the public of some special service, a new appointee for such important position would be favourably considered.

A special committee of Regina doctors was appointed to study and make recommendations with respect to all applications for membership on the staff of either hospital. This arrangement has proved to be very satisfactory.

An emergency is only the result of lack of intelligent preparation.

COMING CONVENTIONS

June 1-3—Canadian Public Health Association, Royal York Hotel, Toronto, Ont.
June 15-19—Canadian Medical Association, Jasper Park, Alberta.
June 22-26—Canadian Nurses' Association, Montreal, Que.
June 22-27—Institute on Hospital Accounting, Bloomington, Indiana.
June 28-July 3—Institute on Hospital Purchasing, Ann Arbour, Mich.
July 7-8—New Brunswick Hospital Association and Nova Scotia and Prince Edward Island Hospital Association, Pictou Lodge, Pictou, N. S.
October 12-16—American Hospital Association, St. Louis, Mo.
October 19-23—American College of Surgeons, Chicago, Ill.
October 19-23—A.C.S. Hospital Standardization Conference, Chicago, Ill. *
October 28-30—Ontario Hospital Association, Toronto, Ont.

* The location of the A.C.S. Congress and the A.C.S. Hospital Standardization Conference has been changed from Los Angeles to Chicago.

Correspondence

What Is the "Kenny Treatment"?

A Method of Treating Affected Muscles in Infantile Paralysis

To the Editor:

Dear Sir:

What is the "Kenny Treatment" for infantile paralysis?

Yours very sincerely,

——, Chairman, Board of Trustees,
——— Hospital

Reply

The so-called "Kenny method" is a form of treatment to hasten restoration of function in muscles suffering loss of tone or complete paralysis from anterior poliomyletis. This form of treatment has been developed by Elizabeth Kenny, an Australian trained nurse, who has had comparatively good success in restoring the function of affected muscles.

Sister Kenny's treatment is a simple one. The patient is placed in the supine position on a firm mattress which does not quite reach to the footboard of the bed against which the feet are placed. To the paralyzed limbs are applied hot packs. These packs are changed every two hours or, in painful cases, as often as every half hour. Passive motion is given several times a day to the affected muscles. This treatment is started early in the course of the disease. The Committee on Research for the Prevention and Treatment of After-effects of the National Foundation of Infantile Paralysis has reported that as a result of this early treatment "the length of time during which pain, tenderness and spasm are present is greatly reduced, and contractures caused by muscles shortening during this period are prevented."

These observations were made by the Committee at the University of Minnesota. Beds were made available at the Minneapolis General Hospital and at the University Hospital. Miss Kenny herself supervised the work of the members of the orthopaedic staff and the physiotherapists who undertook to follow her methods. Some 50 patients in these two hospitals have been treated by these groups since June, 1941, and about as many more have been treated in other nearby hospitals. The Committee on Education and the Committee on Epidemics and Public Health of the Foundation made similar observations respecting the experience in Minnesota, and added that "The general physical condition of the patients receiving this treatment seems to be better than that of patients treated by some of the other methods during a comparable period."

This committee has further recommended the publication of a concise manual dealing with this method.

Although the painful period is shortened and contractures are lessened, there is not much specific evidence concerning the percentage of paralysis cures. This is natural in view of the fact that the primary damage is in the spinal cord. However, it has been reported that after two months of her treatment in the University of Minnesota Hospital, 11 patients out of 20 suffering from paralysis had been completely restored and at least 5 others were making hopeful progress.

The treatment can hardly be described as revolutionary or as approaching the problem from a completely new angle. To quote the *Physiotherapy Review:* "If there is any revolutionary element in the Kenny technique, it consists in its abandonment of early rigid splinting and the adoption of continuous and meticulous hydrotherapy and physical therapy to maintain the function of muscles which still have nerve supply at the highest possible point, at the same time producing increased comfort for the patient."

Ottawa General Surgeon Celebrates Silver Anniversary

At a special ceremony at the Ottawa General Hospital, Dr. J. E. N. DeHaitre, an active member of the Surgical Department for 25 years, was named honorary member, and, in receiving the congratulations of his confreres, was presented with a souvenir.

Born in Rockland, Ontario, and graduated from the University of Toronto in 1903, he interned in Toronto St. Michael's Hospital and Ottawa General Hospital, later setting up practice in Sudbury. He studied in Europe from 1909 to 1913, attending the clinics of many famous masters of the Swiss and French schools. During his stay in Constantinople, he received a medical degree and the title of Sanitary Counsellor of the Turkish Empire.

On the outbreak of the World War he joined the C.A.M.C. as a captain, and saw service in England, Paris, Troyes and Joinville-le-Pont.

In 1920 he joined the staff of the Ottawa General Hospital. A confrere has figured out that the indigent have taken during those 25 years 24,090 hours of his time, and made him travel from his home to the hospital 16,070 miles.

Ottawa General Holds Successful Clinical Day

A one-day Clinical Meeting was held recently by the staff of the Ottawa General Hospital. The authorities of the hospital were particularly pleased with the good proportion of country doctors present, some from over 50 miles away.

The morning session was devoted to a symposium in medicine and pediatrics, including such subjects as vitamin therapy, fever therapy, alcohol therapy in lung diseases, treatment of pleurisy by antipyrine, the fundamental and accessory feeding in children, nervous diseases, etc. Following the symposium, a visit was made to the Departments of Pathology, Fever Therapy and Physiotherapy with demonstration of the Pavaex Boot. After luncheon served by the Grey Nuns of the Cross, the afternoon session was devoted to surgery. The programme included a symposium on the "Acute Abdomen", "Transurethral resection of the prostate", "burns", "toxic goiter", "sequelae of poliomyelitis", and "transfusions". The activities of the Tumor Clinics were also outlined.

Standing orders become obsolete if allowed to stand.

Research Being Conducted on Laundry Sours And Dry-Cleaning Materials

In the annual review of work done during 1941 by the Laundry and Dry Cleaning Research Laboratory of the National Research Council, Mr. C. H. Bayley discusses among other activities the problem of finding substitutes for fluoride sours and for certain dry cleaning supplies.

One of the studies undertaken was that of materials which could be used as substitutes for various types of fluoride sours previously used, supplies of which have become scarce. While it is true that considerable amounts of zinc silico fluoride have become available on the Canadian market in the past year, the supply of this material should not be expected to last indefinitely, since it is, after all, a fluoride material. Work was therefore undertaken and is still in progress, on the problem of finding a suitable type of sour having more satisfactory characteristics than acetic acid. Intimately connected with the problem of substitute sours is that of finding a suitable substitute for oxalic acid, which is still widely used as a rust-remover. Fortunately it can be stated that the situation with respect to oxalic acid seems to be improving, and it is likely that this material will soon be manufactured in Canada.

In the dry cleaning field, the chief restrictions of supplies arising out of the war have been those having to do with supplies of chlorinated solvents and of certain dry cleaning soaps, spotting supplies and bleaches. In the case of chlorinated solvents, the discontinuing of the supply of perchloroethylene makes it necessary to revert to the use of trichloroethylene which must, of course, be used more carefully, especially in regard to the temperature of deodorizing, since, as is well known, this solvent can "bleed" acetate rayon colours at elevated temperatures. The question of as complete as possible reclamation of trichloroethylene assumes the proportions of a national duty, in view of the present shortage of chlorine on this continent. For this reason it is expected that all members using trichloroethylene will make use of the open steam still method of recovering their filter and still sludges.

Sodium hypochlorite solution, which is made from chlorine and caustic soda and is widely used as a laundry bleach, is another material which should be conserved.

Limitation Date Ignored by Court

Hospitals will be interested in a point that arose in the Ontario courts in February, when Mr. Justice McTague was "not impressed" by the argument of the defence in a case involving alleged false commitment on the ground that the statement of claim had not been delivered until after the expiration of the time limit set for bringing such suits in hospital cases. James Tyndal is bringing a $200,000 action against Magistrate Walker of Walkerton and Dr. George H. Stevenson, superintendent of the Ontario Hospital for Mental Diseases at London. The patient had been committed to the mental hospital, and the defence counsel made a motion to dismiss the action on three grounds; the statement of claim had been delivered without leave, it showed no reasonable ground for action, and finally it was not delivered until January 30th, although January 18th was the last date on which it could be delivered in accordance with the period of limitations. Mr. Justice McTague is reported as having then stated: "We are not going to strike it out on that ground." The motion for dismissal was dismissed.

The mental hospital itself was not sued, inasmuch as it belongs to His Majesty the King.

The explanation may lie in the fact that the suit was brought against a judge and an administrator-physician, and not against the hospital itself. (See C. H. C. Bulletin on Hospital Legislation, No. 30, p. 75.)

"No Children, Please"

Dr. S. R. D. Hewitt, Superintendent of the Saint John General Hospital, Saint John, New Brunswick, has requested that no children be brought into the hospital as visitors at the present time. The reason given for the request is that the hospital services are very busy, and children visitors make for further complication of the work of the overburdened staffs.

Depreciation for Reserves

It has long been the custom of hospital trustees to ignore the matter of reserves for depreciation on buildings and equipment for two simple and to them generally adequate reasons, first, that they never or rarely have a surplus with which to meet a depreciation charge, and second, when buildings or equipment must be replaced they have generally been able to obtain from gifts the sums necessary to replace, or rebuild, or expand their undertaking.

Whether or not this is a realistic attitude, during a period such as the present of shrinking individual incomes from savings and investments, increasing taxes almost confiscatory of "excess profits" and inheritances, with a resultant reduction in the number of persons able to make large donations for public philanthropy, is a matter for public-spirited and conservative trustees to decide.

Haven Emerson in "The Baker Memorial"

Price Trends

(On basis 1926=100)

	Yearly Average 1940	Dec. 1940	Nov. 1941	Dec. 1941	Jan. 1942
Building and Construction Materials	95.6	98.3	111.2	111.6	
Consumers' Goods (Wholesale)	83.4	85.2	96.8	95.5	
(On basis 1935-1939=100)					
Cost of Living	105.6	108.0	116.3	115.8	115.4

(February 2, 1942 — 115.7)

DRESSING UP FOR WAR!

Some Answers to Hospital Problems in War-Time

WE can thank ourselves that in this country our doctors, surgeons, hospitals, Red Cross organizations and medical supply houses were equipped, organized and prepared to meet the additional war-time problems that were so quickly placed before them.

More demands are being placed upon us every day both on the battle-front and on the home-front. Here for instance are a few of the problems that are placed before our civilian hospitals. There is a definite increased occupancy through greater industrial activity and more accidents . . . more babies being born and a wider acceptance of hospital care plans. Then there is a labour shortage through nurses and technicians joining Army and Navy services . . . or going into industry.

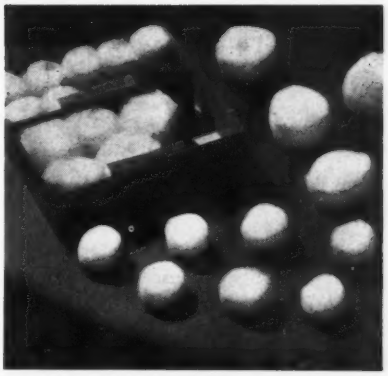
These are just two problems . . . but hospitals are also faced with a growing shortage of supplies coupled with rising costs. Recently, the following comment was made to a group of hospital supervisors. . . "We *must* devise methods of work which will give the same results from fewer workers. We must take advantage of mechanical aids and machines."

To illustrate this we can point to the rapid change-over in many hospital surgeries from old-fashioned bandages to ready-made dressings, made by machines, which cut down on labour time and also cut down on costs. Instead of having part of the nursing staff spend valuable time making up dressings, the material is made up and ready at hand for emergency use at any time. The interesting feature of this development in hospital practise is that ready-made dressings, through scientific research on the raw materials used, have proven to be more effective in use than the old-fashioned kinds.

One of the leading pioneers, if not the pioneer, in the making and preparation of ready-made dressings for hospital use—the Curity people—have developed a model programme for hospitals.

First it is designed to conserve on labour and thus make the most efficient use of all trained personnel—nurses for patient-care and teaching—technicians for special duties.

Then too, materials can be conserved in this war time economy through making the best possible use of ready-made dressings by avoiding unnecessary waste. More important still to hospital management the most economical materials can be used consistent with the maintenance of patient-care standards.



Curity Cotton Balls

These machine-made cotton balls are only slightly more expensive to purchase than the ordinary rolled cotton but because of the two sizes, which meet nearly every hospital need and being uniform in quality, they actually are less expensive to use for hospital needs in surgery, post-operative, maternity, or the nursery.

Curity ready-made dressings fill three basic requisites for hospitals in war time: have eliminated waste and increased efficiency—save money. Also Curity ready-made dressings are designed to meet specific hospital dressings needs. Special materials through research over a period of years have been developed to increase the efficiency of dressings.

More particularly, and this is of special interest to hospital management, is that the standardizing of dressings has been proven to actually raise hospitalization standards. Simplification means the scientific selection of the minimum number of the most efficient dressings and this can be developed into a universal technique even when new nurses and doctors join the staff. When standardized, ready-made dressings is a hospital policy, it is easy to keep an adequate supply on hand ready for immediate and effective use.

Here is a final summary of just what Curity dressings in a war time economy really mean:

THE GOAL

Conserve Labor
Conserve Materials
Maintain Nursing Standards

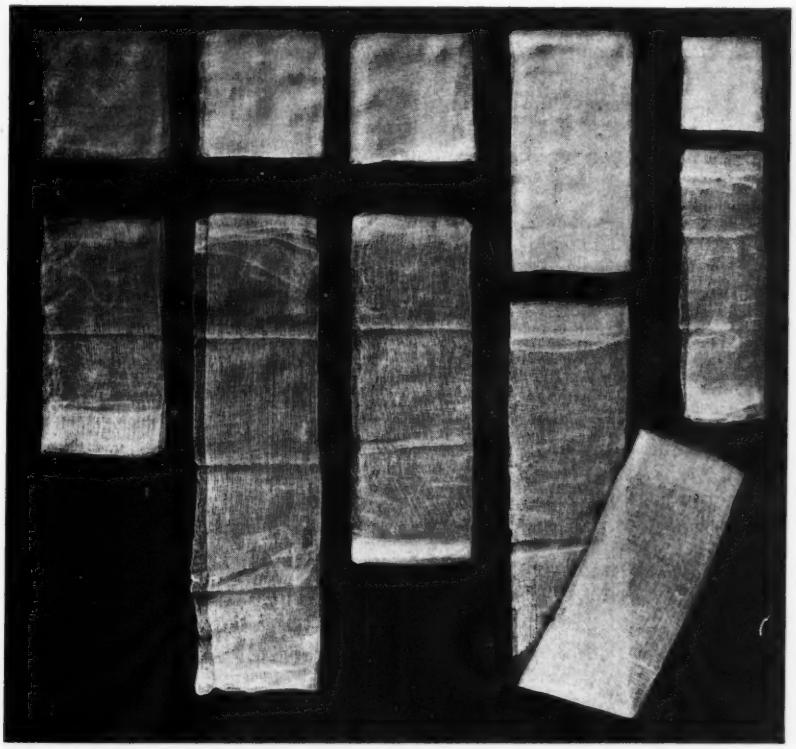
THE MEANS:

The four-point Curity Programme:

1. *Standardizing on Ready-Made Dressings.*
2. *More accurate and Economical Inventory Control.*
3. *Increasing Efficiency by Organizing a Central Dressings Room.*
4. *Group Discussions on Waste of time and Materials.*

Enquiries regarding the four point Curity programme and war time economy in hospitals will be gladly supplied by the Curity representative who calls upon you or direct from

BAUER & BLACK
Limited
LEASIDE ONTARIO



Examples of Machine-Made Surgical Sponges

The top row shows five sizes of sponges and the bottom row shows the extent to which these five sponges can be unfolded without exposing any raw edges. This makes for greater uniformity in purchasing stocks and greater flexibility in their efficient use.

Federal Committee to Study Health Insurance Named by Order-In-Council

Dr. J. J. Heagerty to be Permanent Chairman

The Federal Government in February issued Order-in-Council P.C. 836, authorizing the Health Branch of the Department of Pensions and National Health to "continue the study of health insurance with a view to formulating a health insurance plan". An Advisory Committee on Health Insurance of not less than ten and not more than eleven members was stipulated, such to be under the permanent chairmanship of the Director of Public Health Services (Dr. John J. Heagerty).

The following Committee is named in the order-in-council:

Dr. J. J. Heagerty, Director of Public Health Services, Chairman; Dr. L. C. Marsh, Research Adviser, Department of Pensions and National Health; Mr. A. D. Watson, Chief Actuary, Department of Insurance; Mr. J. C. Brady, Chief, Institutional Statistics, Bureau of Statistics; Mr. S. B. Smith, Chief, Business Statistics, Bureau of Statistics; Miss M. E. K. Roughsedge, Employment Statistics, Bureau of Statistics; Mr. J. R. Munro, Chief, Financial Statistics, Bureau of Statistics; Mr. J. T. Marshall, Chief, Vital Statistics, Bureau of Statistics; Mr. W. G. Gunn, Departmental Solicitor, Department of Pensions and National Health; Mr. C. E. Stevens, Employees' Compensation Branch, Department of Transport.

In addition, Dr. Robert D. Defries, Director, School of Hygiene, Toronto, and scientific adviser on public health to the Dominion Council of Health, was named honorary adviser to this Committee.

The Committee is instructed to study all factual data relating to health insurance and to advise and report thereon to the Minister, Department of Pensions and National Health. The Department is also authorized to employ a full-time research assistant, an economist and other appropriate personnel, should such be required.

In the preamble to the order-in-council, the various steps taken by Parliament and by Parliamentary Committees since 1928 leading to this study were reviewed. (See Editorial, this issue.)

Blankets

(From the Manual of Specifications for the Purchase of Hospital Supplies and Equipment Issued by the American Hospital Association.)

THREE main types of fabrics are used in hospital blankets: All wool, part-wool, and cotton. Part-wool blankets vary widely in wool content ranging from 80 to 90 per cent (all wool filled) to as low as 5 per cent.

Service and laundering conditions have determined to a large extent the type of blankets used in hospitals. All-cotton blankets require less careful laundering procedures but must be renapped after each laundering to renew their fluffiness and warmth. All-wool blankets and blankets with a high wool content will shrink excessively if not carefully handled in the laundry. For this reason many institutions have turned to blankets with wool content ranging from 40 to 60 per cent. Such blankets represent a compromise between good warmth characteristics and washability under average laundry conditions. With a little additional care, however, the better quality blanket with a high wool content could be used with greater satisfaction. One fact has been definitely established—*blankets having a wool content around 25 per cent or under are not enough better than cotton blankets in warmth or other characteristics to warrant their purchase.* Blankets with a 5 per cent wool content, now widely sold, have no place in a hospital; blankets labelled "not less than 5 per cent wool" seldom if ever contain more than 5 per cent wool.

Cotton Blankets

A good cotton blanket should weigh not less than 13 ounces per square yard and have a minimum thread count of 40 in the warp and 36 in the fill. The minimum requirement for breaking strength is 38 pounds in both warp and fill. Cotton blankets should not shrink more than 5 per cent in any direction and any colour should be fast to sunlight and laundering.

All Wool Blankets

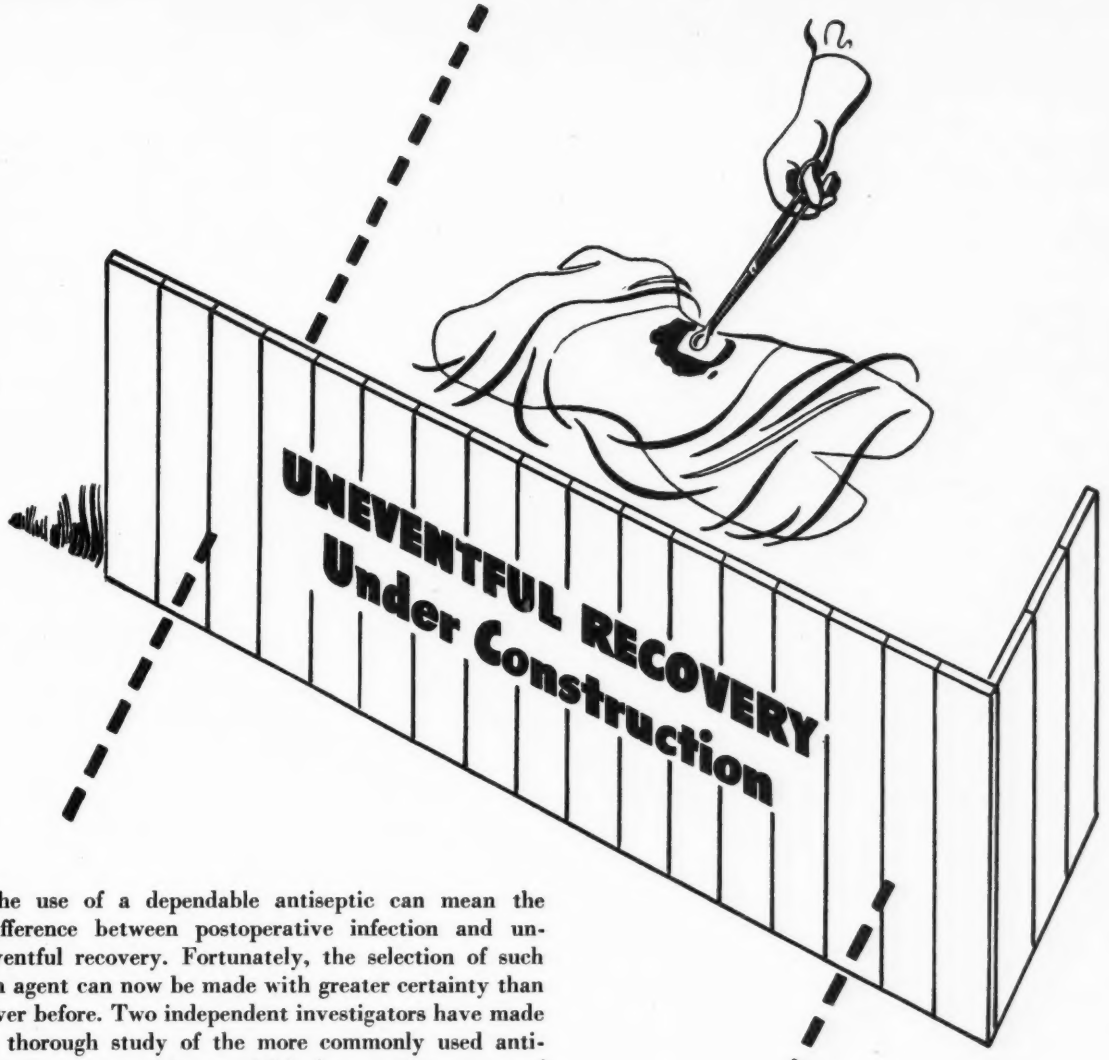
Many hospitals have experienced difficulties in excessive shrinkage and felting of all-wool blankets and blankets with a high wool content. Such troubles are in some instances attributable in part at least to initially poor fabrics. But in many cases improper washing and drying methods are to blame. Manufacturers' instructions for washing should be carefully followed, or, even better, the washing procedures outlined by the American Institute of Laundering should be adopted.

While a good grade of reworked wool or shoddy may be better than a poor grade of virgin wool, it is safer to specify virgin wool as the quality and durability of reworked wool is apt to be poor. Blankets made of fine grades of wool fibres may be superior in appearance and softness, but those made of the coarser grades of wool are more durable. All fleece or pulled wool of a grade not finer than 56s (U.S. Standard) should be specified for institutional blankets. All wool blankets should have a minimum weight of 15 ounces per square yard and a thread count of 34 in each direction. Tensile strength should be not less than 45 pounds in either direction. Napping tends to weaken the yarn of the blanket but is required to make the blanket soft and give it the necessary heat retention qualities. A maximum napping consistent with the above requirements for tensile strength is therefore desirable. The ends of the blanket should be closely whip-stitched or covered with a sateen binding. Silk and rayon bindings are less durable although their appearance is somewhat better.

Part Wool Blankets

It must be frankly admitted that the optimum wool content of a blanket which will give maximum warmth and durability is not known. It is known, however, that an all-wool filled blanket (not less than 80 per cent wool by weight) has warmth characteristics comparable with an all-wool blanket. Such a blanket when made with a high grade cotton warp is also more durable than an all-wool blanket and will give excellent service if properly washed. Blankets with a lower wool content and well constructed otherwise will probably shrink less and have somewhat greater life under average laundry conditions.

(*Concluded on page* 61)



The use of a dependable antiseptic can mean the difference between postoperative infection and uneventful recovery. Fortunately, the selection of such an agent can now be made with greater certainty than ever before. Two independent investigators have made a thorough study of the more commonly used antiseptic agents and have published a complete report of their findings.* *Tincture Metaphen was designated the most effective agent tested.* On the oral mucosa, Tincture Metaphen 1 : 200 was found to reduce bacterial count 95% to 100% within five minutes; to have, in substantial excess over any other antiseptic agent tested, a duration of action of two hours; and to produce only slight irritation in some cases, none in others. Metaphen does not appreciably precipitate blood serum; does not affect surgical instruments or rubber goods; and is quite stable when exposed to air in ordinary use. If you are not already using Tincture Metaphen 1 : 200, give it a trial. It is available in pharmacies everywhere in 1-ounce, 4-ounce, 16-ounce and 1-gallon bottles. ABBOTT LABORATORIES, LIMITED, 20 Bates Road, Montreal.

*Meyer, E., and Arnold, L. (1938), Amer. J. Digest. Dis., 5: 418.

Tincture

Metaphen

(Tincture of 4-nitro-anhydro-hydroxy-mercury-orthocresol Abbott)

Guerilla Hospitals Successful in China

A great deal has been heard about guerilla warfare in Russia, though little information has filtered through regarding the tending of the wounded. In China, however, where over 250,000 determined men are harassing the Japanese lines from behind, a few details are available.

Guerilla hospitals are, of course, most difficult to organize because they are actually in enemy territory. This means that they must be mobile, or so well hidden that they remain undiscovered. Nevertheless, a hero of such hospitals in China was Dr. Norman Bethune, a white-haired Canadian, who did great work for the loyalists in the Spanish Civil War. Unfortunately, owing to the shortage of disinfectants, he died of septicaemia after performing an operation without such aid, and it is fitting that some details of his work should be recorded.

His work in Shensi is described as astounding. Operating behind the Japanese lines he worked continuously. His first aim was to establish base hospitals. For this he used caves, and in one border region he found a cliff with over one hundred caves already formed. These he had cleaned, and by fixing up lighting and an operating theatre was soon able to accommodate several hundred soldiers. He also established mobile units, and on one occasion travelled over 500 miles with a hospital unit, performing 115 operations in one stretch of 69 hours, although under fire from the Japanese.

Primitive Organization

Dr. Bethune's next problem was to get the wounded back to his base hospitals. Often his stretcher-bearers had to pass through villages occupied by the enemy, but since each party was bidden to carry civilian clothing, or knew where it could be obtained, the wounded were able to pass through the Japanese lines on primitive Chinese stretchers. Once more than 1,000 wounded were transported in this manner from central to west Hopei. Sometimes the wounded were housed in huts or shacks. This was not satisfactory, because as soon as the Japanese found out the location of a hospital of this description, it was bombed, and on one occasion a whole hospital of 80 was wiped out.

The organization of all hospitals of this description is, of course, exceedingly primitive. There are no beds, and the patients lie on benches, each with a sheet, and sometimes a blanket in addition. The men retain their clothing, and operations are performed in the wards themselves if there is no theatre. Fortunately, the hard lives of the guerillas has tightened their nerves, so much so that the patient himself, and others in the ward, will watch the surgeon at work intently.

There is no dearth of women nurses, who do what they can to make the men comfortable, and in the cave hospitals, out of reach of bombing, and too far distant for land attack, electrical power plants have been set up, and the whole caves lighted and equipped with proper beds and other hospital amenities. There is still, however, a tremendous need of supplies, both from Europe, America and Chungking, the seat of the Chiang-Kai-Shek government. The China Aid Council of America is, however, doing all it can, and to mark the valuable services of Dr. Bethune it has been decided to erect a memorial in the form of an international peace hospital to his memory.

—Hospital and Nursing Home Management. (England).

A.C.H.A. Dues for Men on Military Service

The American College of Hospital Administrators has ruled that all members who enter the Armed Forces with the rank of officer shall continue to pay their dues unless there are extenuating circumstances, but that all non-commissioned men should have their dues suspended.

The North Not Always Healthy

For some reason, natural resistance to diphtheria grows less as one travels north, so soldiers and sailors sent to the northern latitudes need toxoid. When Dr. Stafford M. Wheeler of Harvard university made a geographic study of diphtheria susceptibility, he found it was least in Alabama, increasing step by step as tests were made in Virginia, Baltimore, Kingston, Halifax and Glace Bay.

How many of you are stingingly aware this afternoon that only in one little corner of Western Europe is there a single university in existence to-day? The quality of universities in America, therefore, is of the liveliest and deadliest importance, if any rushlight of political wisdom, if any flicker of scientific curiosity, or any faint glow of humanity is to continue in the world.

—President C. W. Stanley, at convocation exercises of Dalhousie University.

Hospital Day Preparations Should be Started Now

Now is the time to start preparations for the observance of National Hospital Day. May 12th comes this year on a Tuesday, and it is anticipated that many hospitals will arrange special features on that day for the education of the public.

The previous Sunday, May 10th, would be an appropriate time to arrange for pulpit references to the fine work being done by the local hospitals.

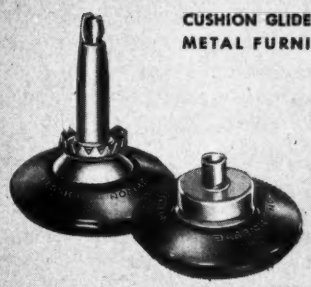
The essential point to remember is that service and other clubs, radio stations and movie theatres arrange their programmes many weeks in advance. NOW is the time to plan the type of programme which you wish to put on and make your necessary contacts without delay.

Awards of Merit Available

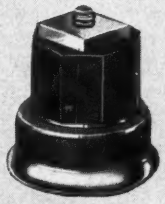
Canadian hospitals are eligible to compete for the various Awards of Merit offered by the National Hospital Day Committee of the American Hospital Association. This year, five Awards of Merit will be granted; *one* to a *hospital* in a city of 15,000 or less inhabitants; *one* to a *hospital* in a city of 15,000 to 99,000 inhabitants; *one* to a *hospital* in a city with 10,000 or more inhabitants; *one* to a *group of hospitals* for city-wide observance of National Hospital Day; *one* to a *state association* for state-wide activity. In each of the five groups, the awards will be based upon general observances of National Hospital Day.

Bassick

CASTERS . . GLIDES . . FURNITURE RESTS . . FLOOR PROTECTION EQUIPMENT . .



CUSHION GLIDES FOR METAL FURNITURE



NOMAR FURNITURE RESTS

FURNITURE CUPS AND SHOES

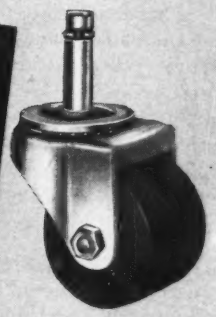
CUSHION GLIDES FOR WOOD FURNITURE

THE COMPLETE QUALITY LINE

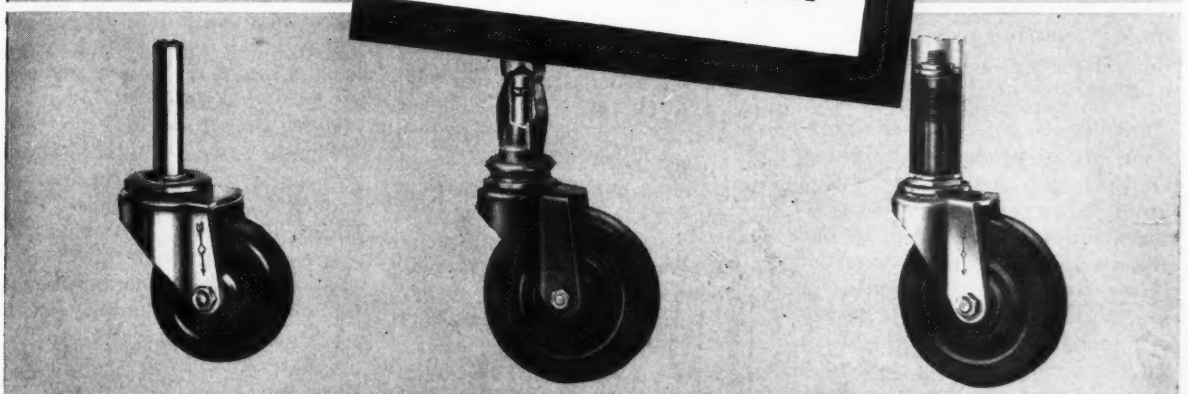
Easy action, quietness and real floor protection for all types of institutional furniture and equipment. Bassick quality products provide all these advantages plus the maximum in economy you want.

SPECIFY BASSICK

SILENT STEEL SPECIALIZED INSTITUTIONAL CASTERS



HEAVY-DUTY DOUBLE WHEEL CASTERS



THE FAMOUS BASSICK DIAMOND ARROW FULL FLOATING BALL BEARING CASTERS

THE WORLD'S LARGEST MANUFACTURERS OF CASTERS AND FLOOR PROTECTION EQUIPMENT

BASSICK A Division of Stewart-Warner-Alemite Corporation of Canada, Limited, Belleville, Ontario

Canadian Manufacturers of: Bassick Casters, "South Wind" Car Heaters, Stewart-Warner Radios, Automotive Hardware, Alemite and Tecalemit Lubrication Systems, Special Products.

How the Radio Advertising of Food and Drugs is Controlled

Those who have some knowledge of drug and food values and of vitamins often wonder why the radio authorities have permitted some of the statements to be made which we recall hearing over the radio. We may recall, however, that the statements now heard are much more tamed down that was the endless drivel to which listeners were subjected a few years ago. While to the purist in therapeutics and in physiology the control could stand considerable further tightening, it is a fact that the Canadian Broadcasting Commission, in controlling Canadian stations, has gone a long way towards protecting the public from unscientific and unwarranted claims and assertions.

The Station Relations Division of the Canadian Broadcasting Commission has worked out a very satisfactory control procedure for radio advertising and addresses, and these methods have been published in a small booklet entitled, *"Procedure for Handling Food and Drug Radio Continuity, Regulation 12"*.

The C.B.C. is desirous that these regulations be known. It is an exceedingly difficult matter for the C.B.C. to check, not only upon all continuity, but to check back again when such is delivered, and the Commission welcomes any information sent to it respecting radio advertising which listeners feel is misleading or improper.

The Regulation is designed to cover any article, product or treatment for which nutritional, medicinal or health claims are made. Thus it includes not only food and drugs but all advertising "in the interest of chiropractors, optometrists, opticians, optical products, mechanical devices and foundation garments—(where claims are made that the garment is of assistance in the treatment of an ailment or any abnormal physical state)".

The advertiser must submit duplicate copies of the proposed script to the Supervisor of Station Relations for approval. These copies are sent to the Department of Pensions and National Health where a thorough check-up is made of the product or service. Special attention is given to the formulae of drugs and patent medicines advertised for the first time in Canada, and these must be approved by the Department's examiners before the continuity is released. In order that a complete analysis may be made, advertisers are required to submit their copy two weeks in advance of the broadcast.

The Department is wary of issuing blanket certifications of approval for a product or service, and for this reason they prefer to stamp each sheet of continuity or transcription disc with a rubber stamp. Such a method relieves the radio station of responsibility, since they have only to refuse to accept advertising which does not bear on the continuity the stamp of the Department of Pensions and National Health.

The period of approval extends for one year, but the Department reserves the right to review the copy within that time if circumstances appear to warrant it.

Advertisers are strictly prohibited from mentioning that their product has been approved by the Department, which might be interpreted by listeners as an endorsation of the food or drug. Nor will "Doctors everywhere recommend Blank's Pills" be passed by the examiners. A cautious "ask your doctor's advice about Blank's Pills" is as far as the enthusiastic copywriter can go in that direction. Other words on the blacklist include 'wonderful', 'ideal', 'magical' and 'miraculous'.

Cosmetics are not included under the Food and Drug regulations. "It is not necessary to submit continuities in the interest of cosmetics for review as long as no therapeutic claims are made". The Regulation adds austerely, "Chewing gum does not come within the scope of the Food and Drugs Act or regulations thereunder". We presume gum containing laxatives or other drugs would.

Communications dealing with misleading or improper advertising of food or drugs should be addressed to Mr. W. John Dunlop, Station Relations Division, Canadian Broadcasting Corporation, Toronto.

Radiological Services in Small Hospitals to be Studied

At the meeting of the Canadian Association of Radiologists, Eastern Division, in London, a feature of the dinner session was a round-table discussion of the "Radiological Problems in Small Hospitals." The national president, Dr. W. H. McGuffin of Calgary, presided, and the discussion was opened by Dr. G. E. Richards of Toronto and by Dr. Harvey Agnew, secretary of the Department of Hospital Service, Canadian Medical Association, who presented the hospital viewpoint.

After a lengthy analysis in which many of those present took part, it was agreed that a special committee should be set up to go extensively into the whole subject, to ascertain the best methods whereby expert radiological service could be extended to rural hospitals at minimum cost. The whole question was approached from the viewpoint of providing better, and in the end less costly, service to the general practitioners and their patients.

It was agreed that the committee should be divided into two divisions, a committee in Western Canada under the chairmanship of Dr. J. C. McMillan of Winnipeg, and an eastern division under the chairmanship of Dr. M. C. Morrison of London.

Many fine papers were presented during the two-day session. Radiologists were present from the whole of Eastern Canada, including a large contingent of French-speaking radiologists. In addition to Dr. McGuffin and Dr. McMillan from the west, Dr. Digby Wheeler of Winnipeg was also present and contributed a paper.

Ideals are like stars; you will not succeed in touching them with your hands, but like the seafaring man on the desert of waters, you choose them as your guides, and, following them, you reach your destiny.

Carl Schurz.

Book Review

WILLIAM HENRY WELCH AND THE HEROIC AGE OF AMERICAN MEDICINE. By Simon Flexner and James Thomas Flexner. 524 pp. Illustrated. Price $4.50. The Viking Press, New York. The Macmillan Co. of Canada, Ltd., Toronto. 1941.

This biography affords the writer an opportunity not only to review the life of one of the great figures of medicine, but to introduce to the readers the leaders of this epochal period in scientific progress. During Dr. Welch's long life (he lived to be 84) medicine became an intricate science; no similar period has witnessed so many new discoveries and developments. As the senior author was for many years associated with Welch at Johns Hopkins and later at the Rockefeller Institute, the work has a personal touch so frequently lacking in biographies.

It is hard for us to realize that when Welch returned from Germany in 1878, glowing with enthusiasm for laboratory diagnosis and research, there was no one in America doing full-time laboratory work, or research or clinical teaching. The leading College of Physicians and Surgeons in New York had never had a laboratory and wasn't interested. Bellevue did give him a little space and "fully twenty-five dollars" to buy the necessary microscopes and other laboratory equipment.

Fortunately the medical faculty at Johns Hopkins University in Baltimore was being organized and in 1884 he joined that famous young quartet—Osler, Holstead, Kelly and Welch—which revolutionized the teaching of medicine, and paved the way for the rise of present day medical research on this continent, now so far ahead of its counterpart in Germany. It took many years to get under way at Baltimore and the tale of that struggle is a story in itself. Once established, however, with Welch as Dean and director of the laboratories, its rapid rise to world fame was sensational. Here Welch early isolated the organism of gas gangrene, the well-known *bacillus welchii*. He also founded and edited the Journal of Experimental Medicine, in itself a tremendous task. He helped establish the Rockefeller Institute in 1900 and was President of the Board until Flexner became Director. An organizer and later President of the National Committee for Mental Hygiene, he was largely responsible for the setting up of the pioneer Henry Phipps Psychiatric Clinic. In 1918 he became head of the first School of Hygiene, also at Baltimore, and set up and edited the American Journal of Hygiene. It was largely through Welch, too, that Gorgas was sent to Panama and the Canal completed, by virtue of Gorgas' elimination of yellow fever. Probably no man on this continent has done so much to advance scientific medicine.

In between his many duties of initiating new developments in medicine, founding new societies or journals, polishing off the anti-vivisectionists or controlling hog cholera, he was quite a human being. Tremendously popular this jolly rotund bachelor who loved good food and endless cigars was everywhere in demand as guest of honour or presiding officer. An inveterate globe trotter he had friends in every country. At home. "Popsy" seldom missed a home game by the "Orioles," and his favourite recreation was to wander off to Atlantic City, Coney Island and other "lowbrow" resorts, where he seldom hesitated to try out the roller coaster or similar heathenish devices. Always behind in his generous commitments or promises, he was a perfect picture in his later years of the brilliant and generous but somewhat impractical genius.

Care of Rubber Goods

(Concluded from page 33)

steam pressure be necessary, refolding to expose the centre and re-sterilizing.

Rubber Tissue

To sterilize, wash thoroughly with Tinc. Green Soap and water, rinse and soak in bichloride 1/2000 or comparable antiseptic for 24 hours. Rinse with sterile water.

Rubber dam used chiefly for drains is either boiled or autoclaved for not more than five minutes. It is frequently stored in alcohol.

St. Mary's Hospital Campaign for Funds Successful

During an 11-day campaign in January, St. Mary's Hospital in Montreal realized a total of $153,561. This amount, which is 90% of the objective of $170,000, will be used to take care of the accumulated deficits of the past three years and to pay off outstanding accounts. The Campaign Committee was under the chairmanship of Lt. Col. W. P. O'Brien.

Blankets

(*Continued from page* 54)

There is, however, no justification for buying blankets with a wool content as low as 25 per cent. Forty per cent is probably the lowest wool content an institutional blanket should have for the required warmth and other necessary characteristics.

There are no government specifications for part wool blankets other than all-wool filled. The wool fibres in a part-wool blanket should not be finer than 56s and for greater durability may be as coarse at 44s. (The latter grade is specified in the government's requirements for part-wool blankets.) All-wool filled blankets should have not less than 80 per cent wool by weight and weigh at least 14 ounces per square yard. A minimum thread count of 52 in the warp and 40 in the fill is required. The warp should have a breaking strength of not less than 38 pounds and the fill 36 pounds. Shrinkage in part-wool, as in other wool blankets, should not exceed 10 per cent. This maximum shrinkage should be allowed for when ordering blanket sizes.

Metal Craft Factory at Grimsby Expanded

Due to the greatly increased demand for modern steel furniture and equipment of all kinds, the Metal Craft Company at Grimsby, Ontario, has been reorganized and expanded, and the latest machinery and processes installed.

As all branches of the armed forces Medical Corps have ordered Metal Craft Hospital Equipment, some delay has occurred in filling regular orders. However, the management feel that the recent improvements will do much to alleviate the present situation.

Modern Electric Food Conveyors and Tray Carriages, (illustrated elsewhere in this issue) are typical of the new products which the company have added to their hospital line. These new food conveyors are available in several different designs, permitting the most complete adaptability for all requirements.

Life is just an everlasting struggle to keep money coming in and teeth and hair and vital organs from coming out.

War In East Affects Drug Supply

Condensed from "Total War Leaves its Mcrk on The Druggists' Shelves", Canadian Pharmaceutical Journal, February, 1942.

ONE by one items on the druggist's shelves are disappearing. Out of the thousands of articles which a druggist carries in stock, either in his dispensary or on the shelves of his store, the few articles not obtainable are scarcely noticed. But it is the opinion of experts in the drug supply field that the shortages due to war conditions will continue to grow in number. A year from now there may be noticeable gaps in the stock of the average druggist.

The importer and the basic supplier are feeling the pinch now; it may take eight months to a year before the druggist will feel the same pinch. But he will feel the pinch of war on his stock, sooner or later.

Take essential oils for example. A. Herridge, manager of the Canadian branch of Fritzsche Brothers, one of the largest essential oil houses in the world, said recently that practically all the sources of essential oils had been cut off by the war. The life line to the East, supplying United States and Canada with essential oils and botanicals from Japan, China and India, has been cut by the recent hostilities.

Menthol and Peppermint Oil

The spice oils, an import item from the far East since the days of Marco Polo, are no longer available. The Indian essential oils, eucalyptus from Australia, caraway seed, coriander seed, lemongrass and citronella from Ceylon and Java have all been cut off. Before the war the Japanese supplied the bulk of the camphor and menthol as well as sarsparilla and agar-agar. To see the repercussions which the bombing of Pearl Harbour had on the North American drug supply one need only to look at the jump which U. S. peppermint oil has taken since the situation with Japan became tense. The price of native peppermint oil has gone up so fast that the Office of Price Administration in the U. S. called together the mint growers to discuss the situation. A price ceiling for mint might be in the offing. The present price for oil of peppermint ranges between $6 and $7 on the U. S. market. It would cost approximately 50 per cent more in Canada. Since some menthol is obtained from oil of peppermint, it will mean probably that mentholated items in the drug store may gradually disappear.

Agar

Before the war Japan practically controlled the world's supply of agar-agar. The seaweed from which agar is extracted is also found along the Pacific coast of the United States, but until the war with Japan it was more profitable to import agar from Japan, where it was collected and processed under Government supervision. Laxatives containing agar may be another product which will become more difficult to secure. It will depend largely on the stocks the manufacturers have on hand.

Talcs have been more difficult to get lately. A possible substitute for talc is Indian rice flour but since the

Gibbons Quickset Desserts

"a cent a serving"

Yes, that's right!

Hundreds of Canadian Hospitals have found

GIBBONS QUICKSET DESSERTS

A solution to one of your Wartime budget problems

FULL FLAVORED ... EASILY PREPARED ... ECONOMICAL

3-Ways of using Gibbons 3-Way Custard Powder

1 Cup Custard

Prepare as for blanc mangé, according to directions on the package. Pour into serving dish, chill, top with whipped cream and garnish with red currant jelly or with maraschino cherry slices.

2 Bread Custard

Make Vanilla Custard Sauce according to directions on package. Pour over small squares of toast. Sprinkle with powdered cinnamon.

3 Custard Sauce With Gibbons Quickset Ginger Bread

Prepare custard sauce as directed on each package. Makes delicious dessert when served as a sauce with Gibbons Quickset Ginger Bread.

Gibbons Quickset Jelly Powders and Desserts

"A CENT A SERVING"

2-24 MATILDA ST., TORONTO, ONT.

Expertly prepared for your Hospital — Shipped prepaid.

war broke out in the East even this source is doubtful. Some talc is available in Ontario, around Murdock and Bobcaygeon, but the methods of refining are not sufficiently advanced to make it a possible source for toiletry talc.

Synthetics will help to eke out the dwindling supplies of essential oils, but here again the demands of war have cut in to the amount available for use in cosmetics, toilet goods and medicinal preparations.

Mace, nutmeg and ginger have all been affected by the war in the East. The bulk of the nutmeg and mace used in the world comes from the Malay Archipelago, particularly the Banda Islands. Ginger, which was introduced in the West Indies by the Spaniards, has advanced from 61 cents in September, 1941, to $1.00 a pound in January, 1942. African ginger has also risen in price and has become scarce.

Glycerine, an important basic material, cannot be purchased without permission of the Chemical Controller, zinc oxide is on a quota, and aniline colouring is becoming more difficult to secure.

Enough Alcohol Available

There is still plenty of stearic acid, a fair supply of lanoline and, according to O. D. Johnston, vice-president of Gooderham and Worts Limited, there will be enough alcohol for all normal needs. At the time of writing there is a freezing order on all alcohol used for cosmetics, but the manufacturers have been assured the order is only temporary. There will be no curtailment of natural needs, Mr. Johnston said.

In the United States the whiskey distillers have been asked to turn their stills over to the production of ethyl alcohol. The whiskey industry proposes that its output of lower-proof spirits be rectified to 190 proof in the industrial alcohol distilleries producing molasses. The only trouble is that the molasses distillers are already working at plant capacity.

The most serious problem as far as the basic supplier in Canada is concerned is the operation of the price ceiling regulations. All the items mentioned in this article, and many others in addition, are imported into Canada. They are getting scarce, and the law of supply and demand, although juggled around considerably by Ottawa and Washington, is still operating. Therefore the price to the importers and the branch houses of U. S. firms here in Canada is going upward as the supply decreases. The attitude of the U. S. supplier is that he has just so much merchandise to sell, and he does not intend to sell it at a loss in Canada. Nor does he want his entire business investigated on the application for a subsidy from the Canadian Government.

Electro-Static Hazards

In our February issue, page 22, we stated that it was our intention to publish in this issue a section of a report on The Use of Combustible Anaesthetics in Operating Rooms. As it is possible that this tentative report to the National Fire Protection Association may undergo further revision, we shall delay this article until further recommendations will have been received.

Charge of Ill Health in Armed Forces Refuted

The statement of Premier Hepburn, as reported in the press, that 45,000 men had been discharged from the forces, mostly because of colds and tuberculosis brought on by the lack of proper clothing, has been indignantly refuted by the Minister of Pensions and National Health. "Every implication in that statement is totally unjustified," stated Mr. Mackenzie, and added that the "irresponsible and unfounded statement" of Mr. Hepburn would have the consequence of needlessly alarming soldiers' families and comforting the enemy.

Of all the men discharged up to November 1st last, only 1,320 had tuberculosis, or one-third of one per cent of all enlistments. Of these 1,320 only 39 were found to have contracted the disease after enlistment or to have had an old ailment aggravated by service. It was pointed out in the House of Commons that the medical services had unearthed many cases of non-active or incipient tuberculosis, and thus saved many lives by warning men of a disability which they had not suspected.

Quoting later figures, the Hon. J. L. Ralston stated that of 29,476 men discharged from the army as medically unfit, some 1,499 were discharged because of tuberculosis. Of these only 55 were men who had gone overseas. Colds have not been a reason for discharge, but if they lead to chronic infection of the respiratory system, the patients are discharged. The number so affected was 3,015.

Speaking for the air force, the Hon. C. G. Power stated that of 2,207 discharges, only 136 had been discharged because of tuberculosis, with 141 suffering from other diseases of the respiratory system.

Speaking for the navy, the Hon. Angus Macdonald stated that of 955 discharges, 53 had been for tuberculosis and 56 for other diseases of the respiratory system.

Mr. Hepburn's figure of 45,000 men discharged because of tuberculosis and colds brought on by lack of proper clothing seems to lack official confirmation.

Hospitalization Plan for Soldiers' Dependants Too Costly

Late in 1940 a medico-hospital care insurance plan was set up at Kirkland Lake for soldiers' dependants. This was a joint effort of the hospital, the doctors, the druggists and the local Red Cross. It was soon found that the hospital board could not carry on its part of the plan without sustaining a very heavy loss. In actual operation of the plan last year, the hospital incurred a deficit of some $1,000. It was suggested at the recent annual meeting of the hospital board that the Red Cross Welfare Committee, which inaugurated the plan, might consider setting up its own system for caring for the dependants.

Total enlistments as at December 31st, 1941, total 424,605. The number in the army serving outside Canada was placed at over 125,000. No figures were given for the Royal Canadian Navy or the Royal Canadian Air Force outside the Dominion.

The division of enlistments among the forces was: Army, 299,059; Navy, 26,141 and Air Force, 99,405.

Modern Nursing Procedures

(*Continued from page* 28)

Lack of equipment.
Antiquated equipment.
Distance from supply room, etc.

Where treatments are given by an intern with a nurse assisting, the favourite time is from 1 p.m. to 7 p.m. This necessity to conform to the intern's timetable may not always be in the best interests of the patient.

Nurse-Patient Ratios

This receives much consideration in the survey. "Ratios of nurses to patients as frequently quoted are confusing and misleading. They do not serve as a basis of comparison of nursing service, as the same working conditions seldom obtain in two different hospitals and the same is true of working conditions in various departments within one hospital." Even the better method of giving the average number of bedside nursing hours which should be provided per patient in 24 hours is influenced by many factors.

Subject to the above limitations and variations, some data obtained by the Department of Studies of the National League of Nursing Education are quoted. These apply to average nursing needs for ward and semi-private patients, and are given in Table 1.

The survey worker found that a public ward of 39 patients (gynaecological and surgical) had 4 day, 2 evening and 2 night nurses. These provided a total of 65½ hours. If the nursing requirements outlined in the table by the National League of Nursing Education were followed, it would be necessary to provide 137 nursing hours in each 24 hours, plus 3 hours for special treatment, or 140 hours in all of nursing care. This would require, ideally, over twice the present nursing staff.

This survey study is reviewed at greater length in the December, January and February issues of *The Canadian Nurse.*

Women's Auxiliaries

(*Continued from page* 45)

expenses for some types of patients at the Tuberculosis Hospital and also to provide crutches and wheel chairs if necessary.

One of the most popular gifts made to the patients was some cribbage boards. Requests have come in since for more of these.

Evangeline Hospital Auxiliary, Saint John

The hospital staff was given permission by the Auxiliary to purchase twelve cots for the nursery, and plans were made for a sale to raise more funds at the next meeting.

An apron shower has also been held for the hospital, and all members brought in donations to a Canadian Copper Night.

Place of Dietitian

(*Continued from page* 35)

current cost has advanced twenty-two per cent over the past year in forty commonly used items. *But* the cost of preparing meals has not risen to anything like that extent, because our dietitian is so arranging her menus that a lot of these advances are sidestepped.

Summary

The following are the major points one would seek in a dietitian of a small hospital:

1. Definite ability in her chosen career, including the ability to organize and handle personnel;

2. A degree from a recognized school or university, coupled with a pleasing personality;

3. A keen interest in the food values and attractiveness of the meals served;

4. Close co-operation with the administrator with a view to achieving service to the patient and economy to the institution.

It would seem probable that persons with least resources have more severe illness, or delay entering hospitals until their chances of recovery are reduced, or perhaps they are less able to meet disease by reason of lower general previous standard of living and medical care.

Haven Emerson in "The Baker Memorial"

THE BUYERS' DIRECTORY

An Alphabetical Directory of Equipment, Supplies, Building Materials and Specialties, with Names of Suppliers.

ABSORBENT COTTON AND GAUZE

Bauer & Black, Ltd., Toronto.
Canadian Laboratory Supplies, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

ACOUSTICAL TREATMENT

Armstrong Cork & Insulation Co., Ltd., Montreal.

ADHESIVE PLASTER

Bauer & Black, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Limited, Toronto.
Johnson & Johnson, Ltd., Montreal.
J. Stevens & Son Co., Ltd., Toronto.

AIR CONDITIONERS, CHEMICAL

Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products, Ltd., Toronto.
G. H. Wood & Co., Ltd., Toronto.

ALCOHOL, RUBBING, DENATURED

Canadian Industrial Alcohol Co., Ltd., Montreal.
Gooderham & Worts, Ltd., Toronto.

ALUMINUM WARE

Aga Heat (Canada) Ltd., Toronto.
Aluminum Goods Limited, Toronto.
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Sully Aluminum, Toronto.
Wrought Iron Range Co., Ltd., Toronto.

ANASCOPE, RECTAL

Gomco Surgical Mfg. Corp., Buffalo, N.Y.

ANAESTHETICS

J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Limited, Toronto.
Merck & Co., Ltd., Montreal.
E. R. Squibb & Sons, of Canada, Ltd., Toronto.

ANAESTHETICS, LOCAL

Abbott Laboratories Ltd., Montreal.

ANAESTHETIC APPARATUS

J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Limited, Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

ANTISEPTICS

Abbott Laboratories Ltd., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Hygiene Products Ltd., Montreal.
Ingram & Bell, Limited, Toronto.
Kennedy Manufacturing Co., Montreal.
Lysol (Canada) Ltd., Toronto.
Parker, White & Hegl, Inc., Toronto.
Reckitt & Colman (Canada) Ltd., Montreal.

BABY POWDER

Johnson & Johnson, Ltd., Montreal.
Merck & Co. Ltd., Montreal.

BACTERIOLOGICAL APPARATUS

Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Can., Ltd., Toronto.
Clay-Adams Co., Inc., New York.

BANDAGES

Bauer & Black, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Johnson & Johnson, Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.

BANDAGES, CASTEX RIGID

Bauer & Black, Ltd., Toronto.

BARLEY FLOUR

Allen & Hanburys Co., Ltd., Lindsay, Ont.

BASKETS, WASTE

Dustbane Products, Ltd., Ottawa.
General Steel Wares, Ltd., Toronto.

BASSINETS

Arrow Bedding, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.

BATH ROBES

Corbett-Cowley, Ltd., Toronto.

BED GOWNS

Bland & Co., Ltd., Montreal.
Corbett-Cowley, Ltd., Toronto.

BED SIDES

T. Eaton Co. Ltd., Toronto.
Metal Fabricators, Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.

BED SPREADS

T. Eaton Co. Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

BEDS, HOSPITAL TYPE

T. Eaton Co. Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators, Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.

BEDPAN EMPTIER, WASHER AND STERILIZER

Scanlan-Morris Co., Madison, Wis.

BEVERAGE COOLERS

Allen & Hanburys Co., Ltd., Lindsay, Ont.
Coca-Cola Co. of Canada Ltd., Toronto.

BEVERAGES, FOOD

Allen & Hanburys Co. Ltd., Lindsay, Ontario.
Coca-Cola Co. of Canada Ltd., Toronto.
Vi-Tone Co., Hamilton.
A. Wander Limited, Peterborough, Ont.

BISCUITS

Christie Brown & Co., Ltd., Toronto.

BLACKOUT METHODS

Geo. H. Hees Sons & Co., Ltd., Toronto.

BLADDER DRAINAGE PUMPS

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

BLANKETS

Ayers Limited, Lachute Mills, Que.
T. Eaton Co., Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

BLANKET WARMERS

American Sterilizer Co., Erie, Pa.
Metal Craft Co., Ltd., Grimsby, Ont.
Scanlan-Morris Co., Madison, Wis.

BLOOD PROCUREMENT PUMP UNIT

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

BLOOD TRANSFUSION SETS

Baxter Laboratories of Canada Ltd., Acton, Ont.
J. F. Hartz Co. Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

BOOKS, MEDICAL

Macmillan Co. of Canada, Ltd., Toronto.

BOOKKEEPING MACHINES

National Cash Register Co. of Canada Ltd., Toronto.

BOTTLES, HOT WATER

Dominion Rubber Co., Ltd., Montreal.
North British Rubber Co. Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
Viceroy Mfg. Co., Ltd., Toronto.

BOVIE UNITS

Ferranti Electric, Ltd., Mt. Dennis, Ont.

BRAN PRODUCTS

Kellogg Co. of Canada, Ltd., London, Ont.

BREAD AND MEAT SLICERS

Berkel Products Co., Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
Hobart Mfg. Co., Ltd., Toronto.

BREAST PUMPS, ELECTRIC

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

BRONCHOSCOPIC PUMP UNITS

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

CABINETS

Chart, History and Special

Clay-Adams Co. Inc., New York.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
J. & J. Taylor, Ltd., Toronto.

CAFETERIA FURNITURE

Arnold Banfield & Co., Toronto.
T. Eaton Co., Ltd., Toronto.

CALL SYSTEMS

Northern Electric Co., Ltd., Montreal.

CANS

American Can Co., Montreal.

CAPS AND MASKS

Johnson & Johnson, Ltd., Montreal.

CAPS, CAPES—NURSES'

Bland & Co., Ltd., Montreal.
Corbett-Cowley, Ltd., Toronto.

CARBONATED DRINKS

Coca-Cola Co. of Canada, Ltd., Toronto.

CASTERS

Metal Craft Co., Ltd., Grimsby, Ont.
Stewart-Warner-Alemite Corp. of Canada, Ltd., (Bassick Division) Belleville, Ont.
Viceroy Mfg. Co. Ltd., Toronto.

CATGUT

Bauer & Black Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Davis & Geck, Inc., Brooklyn, N.Y.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
Seanlan-Morris Co., Madison, Wis.
Surgical Supplies, (Canada) Ltd., Toronto.

CATHETERS

C'ay-Adams Co., Inc., New York.
Davol Rubber Co., Providence, R.I.
Seiberling Rubber Co. of Canada Ltd., Toronto.
Sterling Rubber Co., Ltd., Guelph, Ont.
Surgical Supplies (Canada) Ltd., Toronto.

CELLULOSE DRESSINGS

Bauer & Black, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.

CENTRIFUGES, ELECTRIC

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

CHAIRS, METAL

Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.

CHAIRS, WHEEL

Canadian Fairbanks-Morse Co., Ltd., Montreal.

CHAIRS, WOOD

T. Eaton Co., Ltd., Toronto.
Imperial Rattan Co., Ltd., Stratford, Ont.

CHAIR CUSHIONS

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Viceroy Mfg. Co. Ltd., Toronto.

CHARTS, ANATOMICAL

Clay-Adams Co., Inc., New York.
Ferranti Electric, Ltd., Mt. Dennis, Ont.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

CHEMICALS, DARK ROOM

Ferranti Electric Ltd., Mt. Dennis, Ont.
Victor X-Ray Corp. of Canada, Ltd., Montreal.

CHINA

Br'tish & Colonial Trading Co., Ltd., Toronto.
Cassidy's Ltd., Toronto.

CHLOROFORM

Merck & Co. Ltd., Montreal.
E. R. Squibb & Sons of Canada, Ltd., Toronto.

CHOCOLATE, HOT DRINK

C. W. Gibbons, Toronto.

CHOPPING MACHINES

General Steel Wares, Ltd., Toronto.
Hobart Mfg. Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

CIRCUMCISION CLAMPS

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

CLEANSING TISSUES

Hygiene Products, Limited, Toronto.
National Cellulose of Canada, Ltd., Toronto.

CLEANSING AGENTS

Floors, Etc.

Colgate-Palmolive-Peet Co., Ltd., Toronto.
Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Kennedy Mfg. Co., Montreal.
Hygiene Products Ltd., Montreal.
MacCallum Mfg. Co., Toronto.
G. H. Wood & Co., Ltd., Toronto.

Laundry

Beaver Laundry Machinery Co., Ltd., Toronto.
Canadian Hoffman Machinery Co., Ltd., Toronto.
Colgate-Palmolive-Peet Co., Ltd., Toronto.
D. & J. Tullis (Canada) Ltd., Montreal.

CLOTHING, HOSPITAL
Bland & Co., Ltd., Montreal.
Corbett-Cowley, Ltd., Toronto.

COCA-COLA BEVERAGE
Coca-Cola Co. of Canada Limited, Toronto.

COFFEE
R. B. Hayhoe & Co., Ltd., Toronto.

COFFEE GRINDERS
Hobart Mfg. Co., Ltd., Toronto.

COLD STORAGE ROOMS
Canadian General Electric Co. Ltd., Toronto.
Universal Cooler Co. of Canada Ltd., Brantford, Ont.

COLLAR FINISHING PRESSES
Canadian Hoffman Machinery Co., Ltd., Toronto.
Canadian Laundry Machinery Co., Ltd., Toronto.

COLLECTIONS
Federal Surety Co., Toronto.
Ogilvie & Parker, Ltd., Toronto.

COLOSTOMY OUTFITS
Davol Rubber Co., Providence, R.I.
Seiberling Rubber Co. of Canada, Ltd., Toronto.

COMFORTERS
Canadian Feather & Mattress Co. of Ottawa, Ltd., Ottawa.
Corbett-Cowley, Ltd., Toronto.
Parkhill Bedding Ltd., Winnipeg.
Sleepmaster, Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

CONTROLS, STERILIZER
A. W. Diack, Detroit.
J. Stevens & Son Co., Ltd., Toronto.

CONVEYORS, FOOD
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co. Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Wrought Iron Range Co. Ltd., Toronto.

COOKING RANGES
Aga Heat (Canada) Ltd., Toronto.
Canadian General Electric Co., Ltd., Toronto.
Esse Cooker Co. (Canada) Ltd., Montreal.
General Steel Wares, Limited, Toronto.
Wrought Iron Range Co., Ltd., Toronto.

COOKING UTENSILS
Aga Heat (Canada) Ltd., Toronto.
Aluminum Goods Limited, Toronto.
British & Colonial Trading Co., Ltd., Toronto.
Cassidy's, Ltd., Toronto.
General Steel Wares, Limited, Toronto.
Sully Aluminum, Toronto.

CORKS, CORK TILE, SPECIALTIES
Armstrong Cork & Insulation Co. Ltd., Montreal.

CORN STARCH AND SYRUPS
Canada Starch Co., Ltd., Montreal.

COTS, METAL
Arrow Bedding, Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators, Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.

COTTON, ABSORBENT
See firms listed under "Absorbent Cotton".

CURTAINS, CUBICAL
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Surgical Supplies (Canada) Ltd., Toronto.

CURTAIN AND BLANKET FINISHING EQUIPMENT
Canadian Hoffman Machinery Co., Ltd., Toronto.
Canadian Laundry Machinery Co., Ltd., Toronto.

CURTAIN MATERIAL
T. Eaton Co., Ltd., Toronto.
Geo. H. Hees, Son & Co., Ltd., Toronto.

CUSHIONS, OPERATING, INVALID
Dominion Rubber Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

CUSTARD POWDERS
C. W. Gibbons, 24 Matilda St., Toronto.
Shirriff's Limited, Toronto.

CUTLERY
British & Colonial Trading Co., Ltd., Toronto.
Cassidy's Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
McGlashan-Clarke Co., Ltd., Niagara Falls, Ont.

CUTTERS, BANDAGE AND GAUZE
Eastman Machine Co., Buffalo, N.Y.
W. J. Westaway, Ltd., Hamilton.

DARK ROOM EQUIPMENT
Burke Electric & X-Ray Co., Ltd., Toronto.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Patterson Screen Co., Towanda, Pa.
Victor X-Ray Corp. of Canada, Ltd., Montreal.

DEEP THERAPY LAMPS
Burke Electric & X-Ray Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.
Victor X-Ray Corp. of Canada, Ltd., Toronto.

DELICATOR MACHINES
Berkel Products, Ltd., Toronto.

DEODORANTS
Dustbane Products, Ltd., Ottawa, Ont.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products Ltd., Montreal.
Kennedy Mfg. Co., Montreal.
G. H. Wood & Co., Ltd., Toronto.

DESKS, NURSES' STATIONS
Arrow Bedding, Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.

DESSERTS
C. W. Gibbons, Toronto.
R. B. Hayhoe & Co., Toronto.
The Junket Folks, Toronto.
Shirriff's Limited, Toronto.

DEVELOPING TANKS
Burke Electric & X-Ray Co., Ltd., Toronto.
Canadian Laboratory Supplies, Ltd., Toronto.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Victor X-Ray Corporation of Canada Ltd., Montreal.

DIATHERMY APPARATUS
Burke Electric & X-Ray Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Surgical Supplies (Canada) Ltd., Toronto.
Victor X-Ray Corporation of Canada Ltd., Montreal.

DISHWASHING CLEANERS
Beaver Soap and Chemicals Limited, Winnipeg.
Colgate-Palmolive-Peet Co., Ltd., Toronto.
Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products, Ltd., Montreal.

DISHWASHING MACHINES

G. S. Blakeslee & Co., Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
Hobart Mfg. Co., Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

DISINFECTANTS

Bard-Parker Co., Inc., Danbury, Conn.
Dustbane Products, Ltd., Ottawa.
J. F. Hartz Co., Ltd., Toronto.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products, Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Kennedy Mfg. Co., Montreal.
Lysol (Canada), Ltd., Toronto.
MacCallum Mfg. Co., Toronto.
Reckitt & Colman (Canada) Ltd., Montreal.
G. H. Wood & Co., Ltd., Toronto.

DISINFECTORS, METAL

Canadian Laundry Machinery Co., Ltd., Toronto.

DISPENSERS

Liquid Soap
Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
G. H. Wood & Co., Ltd., Toronto.

DOLLS, HOSPITAL

Clay-Adams Co., Inc., New York, N.Y.

DRAINAGE SHEETS

North British Rubber Co. Ltd., Toronto.

DRAINAGE TUBING

Clay-Adams Co. Inc., New York.
Davol Rubber Co., Providence, R.I.
Dominion Rubber Co., Ltd., Montreal.
Hygiene Products, Ltd., Toronto.
North British Rubber Co., Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
Sterling Rubber Co., Ltd., Guelph, Ont.
Viceroy Mfg. Co., Ltd., Toronto.

DRESSINGS, SURGICAL

Bauer & Black Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal, Que.
National Cellulose of Canada, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.

DRUGS, CHEMICALS

See firms listed under "Pharmaceuticals".

DRUG SUNDRIES, RUBBER

Clay-Adams Co., Inc., New York.
Dominion Rubber Co., Ltd., Montreal.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
Sterling Rubber Co., Ltd., Guelph, Ont.
Viceroy Mfg. Co., Ltd., Toronto.

ECONOMIZERS, FUEL

Beaver Laundry Machinery Co., Ltd., Toronto.
Crane, Limited, Montreal.
Combustion Engineering Corp., Ltd., Montreal.

ELECTRO-MEDICAL EQUIPMENT

Burke Electric & X-Ray Co. Ltd., Toronto.
Ferranti Electric, Ltd., Mt. Dennis, Ont.
Surgical Supplies (Canada) Ltd., Toronto.
Victor X-Ray Corp. of Canada, Ltd., Montreal.

ENAMELWARE, SURGICAL

Casgrain & Charbonneau, Ltée., Montreal.
General Steel Wares, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Ingram & Bell, Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

ENVELOPES

W. J. Gage & Co., Ltd., Toronto.

ETHER

Merck & Co., Ltd., Montreal.
E. R. Squibb & Sons of Canada, Ltd., Toronto.

FEATHER STERILIZING EQUIPMENT

Canadian Laundry Machinery Co., Ltd., Toronto.

FILTERS, CERAMIC

Combustion Engineering Corp., Ltd., Montreal.
Crane, Limited, Montreal.

FIRE FIGHTING APPARATUS

Northern Electric Co., Ltd., Montreal.
Pyrene Mfg. Co. of Canada, Ltd., Toronto.

FIXTURES, ELECTRICAL

American Sterilizer Co., Erie, Pa.
Wilmot Castle Co., Rochester, N.Y.
Northern Electric Co., Ltd., Montreal.
Scanlan-Morris Co., Madison, Wis.

FLATWARE, SILVER

Cassidy's, Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
McGlashan-Clarke Co., Ltd., Niagara Falls, Ont.

FLOOR GLIDERS

Faultless Caster Corp., Stratford, Ont.
Stewart-Warner-Alemite Corporation of Canada, Ltd., (Bassick Div.), Belleville, Ont.
Viceroy Mfg. Co., Ltd., Toronto.

FLOOR POLISH AND WAX

Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
S. C. Johnson & Son, Ltd., Brantford, Ont.
Kennedy Mfg. Co., Montreal.
MacCallum Mfg. Co., Toronto.
G. H. Wood & Co., Ltd., Toronto.

FLOORING, RUBBER

Armstrong Cork & Insulation Co. Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

FORCEPS, UTILITY

Clay-Adams Co., Inc., New York.
Surgical Supplies, (Canada) Ltd., Toronto.

FRUIT DRINKS

Citrus Concentrates, Inc., Dunedin, Florida.
C. W. Gibbons, Toronto.
Greenspot (Toronto) Co., Toronto.
Shirriff's Ltd., Toronto.

FUMIGANTS

Against Clothes Moths
Hygiene Products, Ltd., Montreal.
Merck & Co., Ltd., Montreal.
G. H. Wood & Co., Ltd., Toronto.

FURNACES

Combustion Engineering Corp., Ltd., Montreal.
Darling Bros., Ltd., Montreal.

FURNITURE, STEEL, SURGICAL AND WARD

T. Eaton Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.

Metal Fabricators Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.
Scanlan-Morris Co., Madison, Wis.
Surgical Supplies (Canada) Ltd., Toronto.

FURNITURE, WOOD
T. Eaton Co. Ltd., Toronto.

GAUZE CUTTERS
Eastman Machine Co., Buffalo, N.Y.
W. J. Westaway, Ltd., Hamilton.

GELATINE DESSERTS
C. W. Gibbons, Toronto.
Shirriff's Ltd., Toronto.

GLASS-TILE, BLOCKS, SHEETS
Vitrolite Products of Canada, Ltd., Toronto.

GLASSWARE
British & Colonial Trading Co., Ltd., Toronto.
Cassidy's, Ltd., Toronto.

GLASSWARE, SURGICAL
Canadian Laboratory Supplies Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Clay-Adams Co. Inc., New York.

GLASS WASHERS
Hobart Mfg. Co., Ltd., Toronto.

GLOVES, SURGEONS', NURSES'
Canadian Laboratory Supplies, Ltd., Toronto.
Dominion Rubber Co., Ltd., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Ingram & Bell, Ltd., Toronto.
Sterling Rubber Co., Ltd., Guelph, Ont.
J. Stevens & Son Co., Ltd., Toronto.

GOWNS: PATIENTS', OPERATING
Bland & Co., Ltd., Montreal.
Corbett-Cowley, Ltd., Toronto.

GRAPEFRUIT JUICE
Citrus Concentrates, Inc., Dunedin, Florida.
H. P. Cowan, Toronto.

HEATERS, HOT WATER
Combustion Engineering Corp., Ltd., Montreal.
Crane Limited, Montreal.

HEATING EQUIPMENT
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Combustion Engineering Corp., Ltd., Montreal.
Crane Limited, Montreal.

HEMORRHOIDAL SPECULUM
Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

HOT WATER BOTTLES
Dominion Rubber Co., Ltd., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Ingram & Bell, Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Viceroy Mfg. Co., Ltd., Toronto.

HOTELS
Mount Royal Hotel, Montreal.

HYDRO-THERAPY PLUMBING EQUIPMENT
Crane Limited, Montreal.

ICE CREAM MIX
The Junket Folks, Toronto.

ICE MAKING EQUIPMENT
Frigidaire Division, General Motors Corp., Leaside, Ont.
Universal Coolers of Canada, Ltd., Brantford, Ont.

IDENTIFICATION METHODS
Beads
J. A. Deknatel & Son, Inc., Queen's Village, (L.I.), N.Y.
Linen, etc.
Applegate Chemical Co., Chicago, Ill.
Name Strips
Johnson & Johnson, Ltd., Montreal.
Woven Names
J. & J. Cash, Inc., Belleville, Ont.

INCUBATORS, BACTERIOLOGICAL
Canadian Laboratory Supplies Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

INCUBATORS, BABY
Scanlan-Morris Co., Madison, Wis.
Wilmot Castle Co., Rochester, N.Y.
Surgical Supplies (Canada) Ltd., Toronto.

INDELIBLE INKS
Applegate Chemical Co., Chicago, Ill.

INDUCTOTHERM
Victor X-Ray Corp. of Canada, Ltd., Montreal.

INDUSTRIAL VACUUM EQUIPMENT
Canadian Hoffman Machinery Co., Ltd., Toronto.

INFANT FOODS
Allen & Hanburys Co., Ltd., Lindsay, Ont.
Canada Starch Co., Ltd., Montreal.
The Junket Folks, Toronto.
Vi-Tone Co., Hamilton, Ont.
A. Wander, Limited, Peterborough, Ont.

INKS, INDELIBLE MARKING
Applegate Chemical Co., Chicago, Ill.
British & Colonial Trading Co., Ltd., Toronto.

INSECTICIDES
British & Colonial Trading Co., Ltd., Toronto.
Dustbane Products, Ltd., Ottawa.
Hygiene Products, Ltd., Montreal.
Kennedy Mfg. Co., Montreal.
MacCallum Mfg. Co., Toronto.
G. H. Wood & Co., Ltd., Toronto.

INSTRUMENTS
Operating
Bard-Parker Co., Inc., Danbury, Conn.
Casgrain & Charbonneau, Ltée., Montreal.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Surgical Supplies (Canada), Ltd., Toronto.

INSULATING MATERIALS
Armstrong Cork & Insulation Co., Ltd., Montreal.

INTERCOMMUNICATING SYSTEMS
Northern Electric Co., Ltd., Montreal.

INTRAVENOUS ADMINISTRATION APPARATUS
Macalaster Bicknell Co., Cambridge, Mass.

INTRAVENOUS PREPARATION EQUIPMENT
Macalaster-Bicknell Co., Cambridge, Mass.

INTRAVENOUS SOLUTIONS
Abbott Laboratories, Ltd., Montreal.
Baxter Laboratories of Canada, Ltd., Acton, Ont.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

INTRAVENOUS STORAGE CONTAINERS
Macalaster Bicknell Co., Cambridge, Mass.

IODINE SOLUTION
Canadian Industrial Alcohol Co., Ltd., Montreal.
Gooderham & Worts, Ltd., Toronto.

JELLY POWDERS
C. W. Gibbons. 24 Matilda St., Toronto.
R. B. Haynoe & Co., Toronto.
Shirriff's Limited, Toronto.

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NOW is the time to plan your budget on the basis of a drastically reduced cost of parenteral fluids.

So accurately . . . so safely . . . so inexpensively, can hospitals, today, prepare and store sterile solutions in any desired quantity, that a major percentage of funds normally expended on solutions can either be saved,—or diverted for the purchase of other essential needs.

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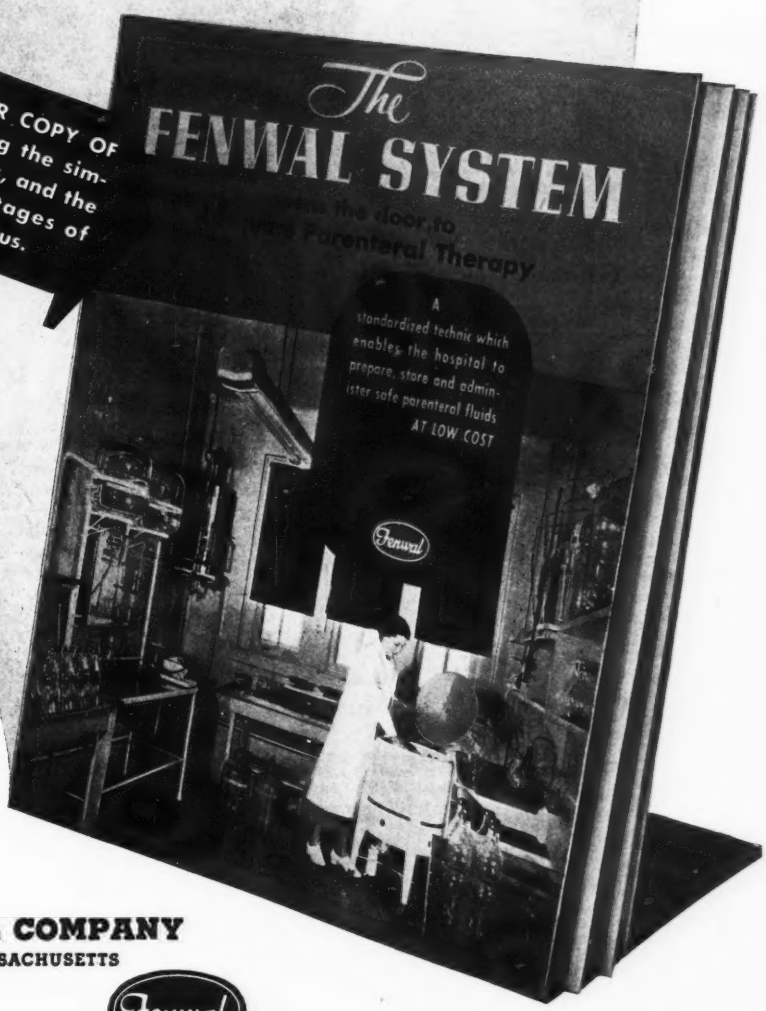

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JUNKET

The Junket Folks, Toronto.

KETTLES, STEAM-JACKETED

Aga Heat (Canada) Ltd., Toronto.
Aluminum Goods Limited, Toronto.
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Sully Aluminum, Toronto.
Wrought Iron Range Co., Ltd., Toronto.

KNIVES

Detachable Blades

Bard-Parker Co., Inc., Danbury, Conn.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.
W. R. Swann & Co., Ltd., Sheffield, Eng.

LABELS, WOVEN

J. & J. Cash, Inc., Belleville.

LABORATORY APRONS

Dominion Rubber Co., Ltd., Montreal.

LABORATORY ASPIRATING PUMP

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

LABORATORY EQUIPMENT AND SUPPLIES

Canadian Laboratory Supplies, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Central Scientific Co. of Canada, Ltd., Toronto.
Clay-Adams Co., Inc., New York.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

LABORATORY FURNITURE

Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators, Ltd., Woodstock, Ont.

LAUNDRY

Blanketing, Wool

Ayers Limited, Lachute Mills, Que.

Equipment, All Kinds, Washers, Ironers.

Beaver Laundry Machinery Co., Ltd., Toronto.
Canadian Hoffman Machinery Co., Ltd., Toronto.
Canadian Laundry Machinery Co., Ltd., Toronto.
J. H. Connor & Son, Ltd., Ottawa, Ont.
D. & J. Tullis (Canada) Ltd., Montreal.

Felt, Wool

Ayers Limited, Lachute Mills, Que.

Mechanical Clothing

Ayers Limited, Lachute Mills, Que.
D. & J. Tullis (Canada) Ltd., Montreal.

Starch

Beaver Laundry Mach'y Co., Ltd., Toronto.
Canada Starch Co., Ltd., Montreal.
D. & J. Tullis (Canada) Ltd., Montreal.

Supplies

Beaver Laundry Mach'y Co., Ltd., Toronto.
Canadian Hoffman Machinery Co., Ltd., Toronto.
Colgate-Palmolive-Peet Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
D. & J. Tullis (Canada) Ltd., Montreal.

LIGHTS, AUTOPSY

American Sterilizer Co., Erie, Pa.

LIGHTS

Operating Room

American Sterilizer Co., Erie, Pa.
Castle, Wilmot Co., Rochester, N.Y.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Northern Electric Co., Ltd., Montreal.
Scanlan-Morris Co., Madison, Wisconsin.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

THE BUYERS' DIRECTORY

LIGHTS
Battery Units—Portable Spotlight
American Sterilizer Co., Erie, Pa.
Castle, Wilmot Co., Rochester, N.Y.
Scanlan-Morris Co., Madison, Wis.

LINENS, BED
T. Eaton Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Textile Products Co., Ltd., Toronto.

LINEN MARKING EQUIPMENT
Applegate Chemical Co., Chicago, Ill.
Beaver Laundry Machinery Co., Ltd., Toronto.
D. & J. Tullis (Canada) Ltd., Montreal.

LINOLEUM, FLOOR
Armstrong Cork & Insulation Co., Ltd., Montreal.
Dominion Oilcloth & Linoleum Co., Ltd., Montreal.
T. Eaton Co., Ltd., Toronto.

LOCKERS, STEEL
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.

MALTED MILK
Allen & Hanburys Co., Ltd., Lindsay, Ont.

LUBRICATING JELLY
Johnson & Johnson, Ltd., Montreal.

MARKING MACHINES
Applegate Chemical Co., Chicago, Ill.

MASKS
Gomco Surgical Mfg. Corpn., Buffalo, N.Y.
Johnson & Johnson, Ltd., Montreal.

MATERNITY PADS
Bauer & Black, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.

MATTRESS COVERS
Arrow Bedding, Ltd., Toronto.
Corbett-Cowley, Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
Sleepmaster, Ltd., Toronto.

MATTRESSES
Arrow Bedding, Ltd., Toronto.
Canadian Feather & Mattress Co. of Ottawa, Ltd., Ottawa.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
Parkhill Bedding Ltd., Winnipeg.
Sleepmaster, Ltd., Toronto.
Vancouver Bedding, Ltd., Vancouver.

MECHANOTHERAPY
Massage Applicators
Burke Electric & X-Ray Co., Ltd., Toronto.
Victor X-Ray Corporation of Canada, Ltd., Toronto.

MEDICAL RECORD FORMS
Hospital & Medical Records Co., Toronto.

METABOLISM APPARATUS
Canadian Laboratory Supplies, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Central Scientific Co. of Canada, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

METAL
Rust Proof
International Nickel Co. of Canada Ltd., Toronto.
Thos. Firth & John Brown, Ltd., Montreal.

THE BUYERS' DIRECTORY

METAL FURNITURE
T. Eaton Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.
Surgical Supplies (Canada) Ltd., Toronto.

MILK FOODS
The Junket Folks, Toronto.
Vi-Tone Co., Hamilton.
A. Wander, Ltd., Peterborough, Ont.

MIRRORS
Vitrolite Products of Canada, Ltd., Toronto.

MIXING MACHINES
General Steel Wares, Ltd., Toronto.
Hobart Mfg. Co., Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

MOPS, COTTON
British & Colonial Trading Co., Ltd., Toronto.
Dustbane Products, Ltd., Ottawa.
Hygiene Products Ltd., Montreal.

MORGENTHALER BED, FOR PREMATURE BABIES
J. A. Deknatel & Son, Inc., Queen's Village, L.I., N.Y.

MORTUARY EQUIPMENT
Frigidaire Div., General Motors Sales Corp., Leaside, Ont.

MOTH REPELLANTS
Merck & Co., Limited, Montreal.
G. H. Wood & Co., Ltd., Toronto.

MOUTH WIPES
Bauer & Black, Ltd., Toronto.
Hygiene Products, Ltd., Toronto.
Johnson & Johnson Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.
Victoria Paper & Twine Co., Ltd., Toronto.

NAMES, BEADS
J. A. Deknatel & Son, Inc., Queen's Village, (L.I.), N.Y.

NAMES, WOVEN
J. & J. Cash, Inc., Belleville.

NARCOTICS
Merck & Co., Ltd., Montreal.

NASAL IRRIGATING UNITS
Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

NEEDLES, HYPODERMIC
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Scanlan-Morris Co., Madison, Wis.

NIPPLES, BABY BOTTLE
Sterling Rubber Co., Ltd., Guelph, Ont.

NUTRITIONAL PRODUCTS
Abbott Laboratories, Ltd., Montreal.
Allen & Hanburys Co., Ltd., Lindsay, Ont.
Merck & Co., Ltd., Montreal.
E. R. Squibb & Sons of Canada, Ltd., Toronto.

OBSTETRICAL PHANTOMS
Clay-Adams Co., Inc., New York.

OBSTETRICAL TABLES
American Sterilizer Co., Erie, Pa.
Casgrain & Charbonneau, Ltée., Montreal.
Metal Fabricators, Ltd., Woodstock, Ont.
Scanlan-Morris Co., Madison, Wis.
Surgical Supplies (Canada) Ltd., Toronto.

OFFICE SUPPLIES
W. J. Gage & Co., Ltd., Toronto.

For Hospitals That Insist On Top Quality

HYPRO CELLULOSE MOUTH WIPES

. . . the best and most economical mouth wipe obtainable

ECONOMICAL — Enthusiastic approval has greeted the new Hypro Cellulose Mouth Wipe! It's the most practical mouth wipe yet designed. Square in size, it's really a miniature handkerchief—the wastage which occurred with the old type, narrow strip mouth wipe, is completely eliminated.

UNSURPASSED IN QUALITY—This new Hypro Cellulose Mouth Wipe is made from the finest, soft sterilized cellulose obtainable. It's downy texture is highly absorbent and prevents irritation.

"ONE-AT-A-TIME" PACKAGE—Only one double sheet can be removed at a time from the convenient, 150 sheet carton. A considerable saving is effected through this feature alone, as wastage is usually incurred when two or more sheets are removed at a time.

SAMPLES and prices gladly submitted upon request. Write or telephone your nearest Hygiene Products' office.

Hypro white TISSUE Mouth Wipes are still available for those who prefer this type of mouth wipe.

HYGIENE PRODUCTS LTD.

TORONTO MONTREAL

Offices: Saint John, Ottawa, Kingston, Hamilton, Windsor, Ft. William, Winnipeg, Calgary, Vancouver

THE BUYERS' DIRECTORY

OILS, BABY

Johnson & Johnson, Ltd., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

OILS

Cooking and Salad

Canada Starch Co., Ltd., Montreal.

OIL CLOTH, TABLE AND FLOOR

Dominion Oilcloth & Linoleum Co., Ltd., Montreal.
T. Eaton Co., Ltd., Toronto.

OPERATING TABLE PADS

Dominion Rubber Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Seiberling Rubber Co. of Canada, Ltd., Toronto.

OPERATING ROOM EQUIPMENT

Allen & Hanburys Co., Ltd., Lindsay, Ont.
American Sterilizer Co., Erie, Pa.
Casgrain & Charbonneau, Ltée., Montreal.
Castle, Wilmot Co., Rochester, N. Y.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Scanlan-Morris Co., Madison, Wis.
J. Stevens & Sons Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

OPHTHALMOLOGICAL INSTRUMENTS

Down Bros., Ltd., Toronto.

ORANGE JUICE, CONCENTRATE

Citrus Concentrates, Inc., Dunedin, Florida.
H. P. Cowan, Toronto.
Green Spot (Toronto) Co., Toronto.

OVENS, BAKING

Aga Heat (Canada) Ltd., Toronto.
Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canadian General Electric Co., Ltd., Toronto.
Esse Cooker Co. (Canada) Ltd., Montreal.
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Wrought Iron Range Co., Ltd., Toronto.

OVENS, DRYING ELECTRIC

Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.

OVERTHROWS, WOOL

Ayers Limited, Lachute Mills, Que.
Textile Products Co., Ltd., Toronto.

PAILS—ENAMELLED, GALVANIZED, WOODEN

Dustbane Products, Ltd., Ottawa.
General Steel Wares, Ltd., Toronto.

PAINTS

T. Eaton Co., Ltd., Toronto.

PAPER GOODS

Doilies, Tray Covers, etc.

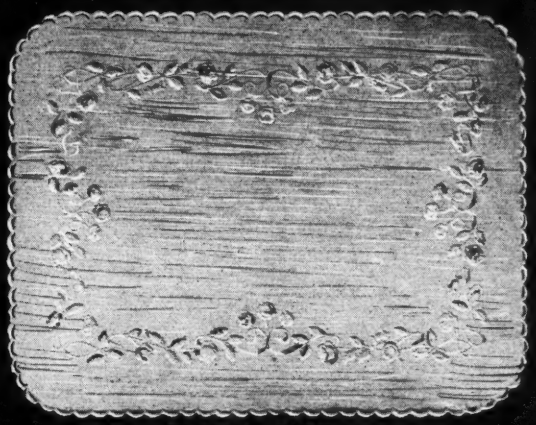
Dustbane Products, Ltd., Ottawa.
E. B. Eddy Co., Ltd., Hull, Que.
Hygiene Products Ltd., Montreal.
Victoria Paper & Twine Co., Ltd., Toronto.
G. H. Wood & Co., Ltd., Toronto.

PAPER, STATIONERY

E. B. Eddy Co., Ltd., Hull, Que.
W. J. Gage & Co., Ltd., Toronto.

PAPER TOWELS—TOILET TISSUES

Dustbane Products Ltd., Ottawa.
E. B. Eddy Co., Ltd., Hull, Que.
Hygiene Products Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.
Victoria Paper & Twine Co., Ltd., Toronto.
G. H. Wood & Co., Ltd., Toronto.



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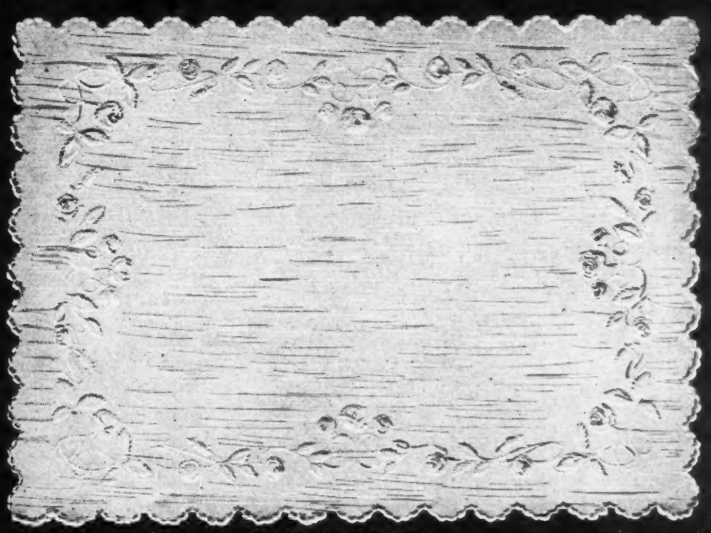

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PAPER, WAXED
Victoria Paper & Twine Co., Ltd., Toronto.

PARENTERAL SOLUTIONS
Abbott Laboratories Limited, Montreal.
Baxter Laboratories of Canada, Ltd., Acton, Ont.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

PARENTERAL SOLUTION PREPARATION EQUIPMENT
Macalaster Bicknell Co., Cambridge, Mass.

PHANTOMS "OB"
Clay-Adams Co., Inc., New York, N.Y.

PHARMACEUTICAL PREPARATIONS
Abbott Laboratories, Ltd., Montreal.
Allen & Hanburys Co., Ltd., Lindsay, Ont.
Casgrain & Charbonneau, Ltée., Montreal.
Ciba Co., Limited, Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Merck & Co., Ltd., Montreal.
E. R. Squibb & Sons, of Canada, Ltd., Toronto.

PHOTOGRAPHIC SUPPLIES
Burke Electric & X-Ray Co., Ltd., Toronto.
Ferranti Electric, Ltd., Mt. Dennis, Ont.
Victor X-Ray Corporation of Canada, Ltd., Toronto.

PHYSICAL THERAPY APPARATUS
Burke Electric & X-Ray Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Ingram & Bell, Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.
Victor X-Ray Corp. of Canada, Ltd., Montreal.

PILLOWS
Canadian Feather & Mattress Co. of Ottawa, Ltd. Ottawa.
T. Eaton Co., Ltd., Toronto.
Geo. H. Hees, Son & Co., Ltd., Toronto.
Parkhill Bedding, Ltd., Winnipeg.
Sleepmaster, Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

PIPETTE ASPIRATOR
Gomco Surgical Mfg., Corp., Buffalo, N.Y.

PLASTER OF PARIS
Johnson & Johnson, Ltd., Montreal.

PLUMBING—PIPE
Crane Limited, Montreal.

POLISH, BRASS
Dustbane Products, Ltd., Ottawa.
Kennedy Mfg. Co., Montreal.

POTATO PEELING MACHINES
G. S. Blakeslee & Co., Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
Hobart Mfg. Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

PRE-HEATERS, AIR
Crane Limited, Montreal.
Combustion Engineering Corp. Ltd., Montreal.

PRESSES, WEARING APPAREL
Canadian Hoffman Machinery Co., Ltd., Toronto.
Canadian Laundry Machinery Co., Ltd., Toronto.

PUDDING POWDERS
C. W. Gibbons, Toronto.

PUMPS, VACUUM, ETC.
Crane Limited, Montreal.
Darling Bros., Ltd., Montreal.

QUARTZ LAMPS
Burke Electric & X-Ray Co., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies, (Canada) Ltd., Toronto.
Victor X-Ray Corporation of Canada, Ltd., Toronto.

RADIO SETS

Stewart-Warner-Alemite Corporation of Canada Ltd., Belleville, Ont.

RANGES

Coal

Aga Heat (Canada) Ltd., Toronto.
Esse Cooker Co. (Canada) Ltd., Montreal.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

Electric

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canadian General Electric Co., Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Northern Electric Co., Ltd., Montreal.

Gas

General Steel Wares, Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Wrought Iron Range Co., Ltd., Toronto.

Heavy Duty

Aga Heat (Canada) Ltd., Toronto.
Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canadian General Electric Co., Ltd., Toronto.
Esse Cooker Co. (Canada) Ltd., Montreal.
General Steel Wares, Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Wrought Iron Range Co., Ltd., Toronto.

REAGENT LABORATORY CHEMICALS

Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Merck & Co., Ltd., Montreal.

RECTAL INSTRUMENTS

Gomco Surgical Mfg. Corp., Buffalo, N.Y.

RECTAL SPECULA

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

REFRIGERATORS

Blood Banks

Frigidaire Div., General Motors Sales Corpn., Leaside, Ontario.

REFRIGERATORS

Canadian General Electric Co., Ltd., Toronto.
Frigidaire Div., General Motors Sales Corpn., Leaside, Ontario.
General Steel Wares, Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Northern Electric Co., Ltd., Montreal.
Universal Cooler Co. of Canada, Ltd., Brantford, Ont.

REFRIGERATING MACHINERY

Canadian General Electric Co., Ltd., Toronto.
Frigidaire Div., General Motors Sales Corpn., Leaside, Ontario.
Northern Electric Co., Ltd., Montreal.
Universal Cooler Co. of Canada, Ltd., Brantford, Ont.

REPAIRS, SURGICAL INSTRUMENTS

J. F. Hartz Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

RINGS AND PILLOWS, RUBBER

Dominion Rubber Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
Viceroy Mfg. Co., Ltd., Toronto.

RUBBER FLOORING

Armstrong Cork & Insulation Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

RUBBER GLOVES

Canadian Laboratory Supplies, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Dominion Rubber Co., Ltd., Montreal.

J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
North British Rubber Co., Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
Sterling Rubber Co., Ltd., Guelph, Ont.
J. Stevens & Son Co., Ltd., Toronto.

RUBBER MARKING INK

Applegate Chemical Co., Chicago, Ill.

RUBBER SHEETING

Stedfast Rubber Co. (Canada) Ltd., Granby, Que.

RUBBER SUNDRIES

Casgrain & Charbonneau, Ltée., Montreal.
Clay-Adams Co., Inc., New York.
Davol Rubber Co., Providence, R.I.
Dominion Rubber Co., Ltd., Montreal.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
North Brtish Rubber Co., Ltd., Toronto.
Seiberling Rubber Co. of Canada, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.
Viceroy Mfg. Co., Ltd., Toronto.

RUBBERIZED SILK

Canadian Industries Ltd., New Toronto, Ont.
Dominion Rubber Co., Ltd., Montreal.
Stedfast Rubber Co. (Canada) Ltd., Granby, Que.

RUGS, TRAVELLING

Ayers Limited, Lachute Mills, Que.
T. Eaton Co., Ltd., Toronto.

SAFES

J. & J. Taylor Co., Ltd., Toronto.

SANITARY NAPKINS

Bauer & Black, Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
Johnson & Johnson, Ltd., Montreal.
National Cellulose of Canada, Ltd., Toronto.

SCALPEL BLADES

Bard-Parker Co., Inc., Danbury, Conn.
Surgical Supplies (Canada) Ltd., Toronto.
W. R. Swann & Co., Ltd., Sheffield, England.

SCISSORS

Renewable Edge
Bard-Parker Co., Inc., Danbury, Conn.

SCREEN, BEDSIDE

Arrow Bedding, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.

SCREENS, X-RAY

Burke Electric & X-Ray Co., Ltd., Toronto.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Patterson Screen Co., Towanda, Pa.
Victor X-Ray Corp. of Canada, Ltd., Toronto.

SCRUBBING MACHINES

Dustbane Products Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
MacCallum Mfg. Co., Toronto.
G. H. Wood & Co., Ltd., Toronto.

SEATS, TOILET

Viceroy Mfg. Co., Ltd., Toronto.

SHEETS, BED

T. Eaton Co., Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

SHEETING, FOR CASTS

Dunlop Tire & Rubber Goods Co., Ltd., Toronto.

SHEETING, RUBBER

Can. General Rubber Co., Ltd., Galt, Ont.
Canadian Industries, Ltd., New Toronto, Ont.

The light that must not fail . . .

The ultimate strength of a nation is based on the physical well-being of its people. Of small worth in the defense of Canada would be a powerfully equipped Army and Navy—without a physically-fit personnel. Yes, and of small worth such military might without the support of a physically-fit civilian population . . . in the defense industries, the mines, the farms, and countless other occupations essential to the nation's welfare.

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Since X-Ray screens are essential to the radiological profession, Patterson has long been prepared to maintain production of X-Ray Screens through this emergency. An adequate supply of restricted chemicals has been assured. Research as well as production are being stepped up. As always, our extensive testing facilities and highly-trained personnel are maintaining laboratory control over every process from raw materials to finished screens.

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TOWANDA, PA., U. S. A.

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Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Hygiene Products, Ltd., Montreal.
North British Rubber Co., Ltd., Toronto.
Stedfast Rubber Co. (Canada) Ltd., Granby, Que.

SHORT WAVE THERAPY APPARATUS

Burke Electric & X-Ray Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Ferranti Electric Ltd., Mt. Dennis, Ont.
J. F. Hartz Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.
Victor X-Ray Corp. of Canada, Ltd., Toronto.

SILVERWARE

Hollow and Flatware

British & Colonial Trading Co., Ltd., Toronto.
Cassidy's Limited, Toronto.
T. Eaton Co., Ltd., Toronto.
McGlashan-Clarke Co., Ltd., Niagara Falls, Ont.

SINKS, KITCHEN

Crane, Limited, Montreal.
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

SINKS—WASH-UP, SERVICE, LAB.

Crane Limited, Montreal.

SLICERS

See Firms Listed Under Bread and Meat Slicers.

SOAPS, LIQUID

Dustbane Products Ltd., Ottawa.
J. F. Hartz Co., Ltd., Toronto.
Huntington Laboratories of Can., Ltd., Toronto.
Hygiene Products Ltd., Montreal.
Ingram & Bell, Ltd., Toronto.
Kennedy Mfg. Co., Montreal.
MacCallum Mfg. Co., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
G. H. Wood & Co., Ltd., Toronto.

SOAPS, BABY

Bauer & Black, Ltd., Toronto.
Colgate-Palmolive-Peet Co., Ltd., Toronto.
Huntington Laboratories of Canada, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
G. H. Wood & Co., Ltd., Toronto.

SOAPS, CHIP AND POWDERED

Colgate-Palmolive-Peet Co., Ltd., Toronto.
Dustbane Products Ltd., Ottawa.
Hygiene Products Ltd., Montreal.

SOAP DISPENSERS

Dustbane Products Ltd., Ottawa.
Huntington Laboratories of Can., Ltd., Toronto.
Hygiene Products Ltd., Montreal.
MacCallum Mfg. Co., Toronto.
C. C. Snowdon, Toronto.
G. H. Wood & Co., Ltd., Toronto.

SOAPS, TOILET

Colgate-Palmolive-Peet Co., Ltd., Toronto.
Dustbane Products, Ltd., Ottawa.
Kennedy Mfg. Co., Montreal.
G. H. Wood & Co., Ltd., Toronto.

SOLUTION ROOM EQUIPMENT

Macalaster Bicknell Co., Cambridge, Mass.

SPIRITS, MEDICINAL

Canadian Industrial Alcohol Co., Ltd., Montreal.
Gooderham & Worts, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

SPRINGS, WIRE BED

Arrow Bedding, Ltd., Toronto.
Canadian Feather & Mattress Co. of Ottawa, Ltd., Ottawa.
T. Eaton Co., Ltd., Toronto.

THE BUYERS' DIRECTORY

Parkhill Bedding Ltd., Winnipeg.
Sleepmaster, Ltd., Toronto.
Vancouver Bedding, Ltd., Vancouver.

SPUTUM CUP REFILLS
Hygiene Products Ltd., Toronto.
Victoria Paper & Twine Co., Ltd., Toronto.

STAINLESS STEEL
Firth-Vickers Stainless Steels, Ltd., Sheffield, England.
Thos. Firth & John Brown Ltd., Montreal.

STAINS
Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Clay-Adams Co. Inc., New York.

STEAM COOKING EQUIPMENT
Esse Cooker Co., (Canada) Ltd., Montreal.

STEAM SPECIALTIES
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Combustion Engineering Corp., Ltd., Montreal.
Crane Limited, Montreal.

STEAMERS
Aga Heat (Canada) Ltd., Toronto.
Aluminum Goods Ltd., Toronto.
Sully Aluminum, Toronto.
Wrought Iron Range Co., Ltd., Toronto.

STEREOSCOPES
Burke Electric & X-Ray Co., Ltd., Toronto.
Canadian Laboratory Supplies, Ltd., Toronto.
Ferranti Electric Ltd., Mt. Dennis, Ont.
Victor X-Ray Corporation of Canada, Ltd., Toronto.

STERILIZERS
American Sterilizer Co., Erie, Pa.
Canadian Laboratory Supplies, Ltd., Toronto.
Canadian Laundry Machinery Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Castle, Wilmot Co., Rochester, N.Y.
Central Scientific Co. of Canada, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Scanlan-Morris Co., Madison, Wis.
Surgical Supplies (Canada) Ltd., Toronto.

STERILIZERS, BABY BOTTLES
Ingram & Bell, Ltd., Toronto.

STERILIZER CONTROLS
A. W. Diack, Detroit, Mich.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.

STERILIZER TABLETS
Wilmot-Castle Co., Rochester, N.Y.

STETHOSCOPES
Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

STILLS, WATER
American Sterilizer Co., Erie, Pa.
Canadian Laboratory Supplies, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Castle, Wilmot Company, Rochester, N.Y.
Central Scientific Co. of Canada, Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Scanlan-Morris Co., Madison, Wis.

STOKERS, ALL KINDS
Canadian Fairbanks-Morse Co., Ltd., Montreal.
Combustion Engineering Corpn. Ltd., Montreal.

STRETCHERS, WHEEL
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Scanlan-Morris Co., Madison, Wis.

THE BUYERS' DIRECTORY

SUCTION AND ETHER UNITS
Gomco Surgical Mfg. Corpn., Buffalo, N.Y.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

SURGICAL AND MEDICAL SUPPLY DEALERS
Casgrain & Charbonneau, Ltée., Montreal.
Down Bros., Ltd., Toronto.
Fisher & Burpe, Ltd., Winnipeg.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

SURGICAL BLADES
Bard-Parker Co., Inc., Danbury, Conn.
Surgical Supplies (Canada) Ltd., Toronto.
W. R. Swann & Co., Ltd., Sheffield, England.

SURGICAL NEEDLES, EYELESS
J. A. Deknatel & Son, Inc., Queen's Village, L.I., N.Y.

SURGEONS' AND INTERNS' CLOTHING
Bland & Co., Ltd., Montreal.
Corbett-Cowley, Ltd., Toronto.

SURGICAL NYLON
J. A. Deknatel & Son, Inc., Queen's Village, L.I., N.Y.

SURGICAL SILK
J. A. Deknatel & Son, Inc., Queen's Village, L.I., N.Y.

SUTURES
Bauer & Black, Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
Davis & Geck, Inc., Brooklyn, N.Y.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.
Scanlan-Morris Co., Madison, Wis.

SWEEPING COMPOUNDS
Dustbane Products, Ltd., Ottawa.
Huntington Laboratories of Canada, Ltd., Toronto.
Kennedy Mfg. Co, Montreal.
MacCallum Mfg. Co., Toronto.
C. C. Snowdon, Toronto.

SYRINGES, HYPODERMIC
Canadian Laboratory Supplies, Ltd., Toronto.
Central Scientific Co. of Canada, Ltd., Toronto.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

TABLES, AUTOPSY
American Sterilizer Co., Erie, Pa.
Scanlan-Morris Co., Madison, Wis.

TABLES, BEDSIDE, OVERBED
Arrow Bedding, Ltd., Toronto.
Arnold Banfield & Co., Toronto.
T. Eaton Co., Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Metal Fabricators Ltd., Woodstock, Ont.
Parkhill Bedding, Ltd., Winnipeg.
Scanlan-Morris Company, Madison, Wis.
Surgical Supplies (Canada) Ltd., Toronto.

TABLES, COMPOSITION TOP
Arnold Banfield & Co., Toronto.

TABLES, DINING ROOM
Arnold Banfield & Co., Toronto.
Cassidy's, Limited, Toronto.
T. Eaton Co., Ltd., Toronto.

TABLES, OBSTETRICAL
American Sterilizer Co., Erie, Pa.
Casgrain & Charbonneau, Ltée., Montreal.
Down Bros., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.

Metal Fabricators Ltd., Woodstock, Ont.
Scanlan-Morris Co., Madison, Wis.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

TABLES, OPERATING

American Sterilizer Co., Erie, Pa.
Down Bros., Ltd., Toronto.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.
Scanlan-Morris Co., Madison, Wis.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

TABLES, STEAM

General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Wrought Iron Range Co., Ltd., Toronto.

TALCUM

Bauer & Black, Ltd., Toronto.
Johnson & Johnson, Ltd., Montreal.

TEA

R. B. Hayhoe & Co., Ltd., Toronto.

TEXTILES

T. Eaton Co., Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

THERMOMETERS, CLINICAL

Casgrain & Charbonneau, Ltée., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Hygiene Products Ltd., Montreal.
Ingram & Bell, Ltd., Toronto.
J. Stevens & Son Co., Ltd., Toronto.
Surgical Supplies (Canada) Ltd., Toronto.

THERMOS BOTTLES, SETS

Thermos Bottle Co., Ltd., Toronto.

THERMOTIC SUCTION PUMPS

Gomco Surgical Mfg. Corpn., Buffalo, N.Y.

TOASTERS, ELECTRIC

Canadian General Electric Co., Ltd., Toronto.
Moffats, Limited, Weston, Ont.
Northern Electric Co., Ltd., Montreal.

TOILETS

Crane Limited, Montreal.

TOWELS, PAPER

Dustbane Products, Ltd., Ottawa.
E. B. Eddy Co., Ltd., Hull, Que.
Hygiene Products Ltd., Montreal.
Victoria Paper & Twine Co., Ltd., Toronto.

TOWELS AND TOWELLING

T. Eaton Co., Ltd., Toronto.
Textile Products Co., Ltd., Toronto.

TRACTION APPARATUS

Clay-Adams Co., Inc., New York, N.Y.

TRAYS

Aluminum Goods Limited, Toronto.
Arnold Banfield & Co., Toronto.
British & Colonial Trading Co., Ltd., Toronto.
Cassidy's, Ltd., Toronto.
T. Eaton Co., Ltd., Toronto.
General Steel Wares, Ltd., Toronto.
Hospital & Kitchen Equipment Co., Ltd., Toronto.
Thermos Bottle Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Wrought Iron Range Co., Ltd., Toronto.

TRAY COVERS

Victoria Paper & Twine Co., Ltd., Toronto.
G. H. Wood & Co., Ltd., Toronto.

TRUCKS, FOOD

Brantford Oven & Rack Co., Ltd., Brantford, Ont.
Canadian Fairbanks-Morse Co., Ltd., Montreal.
General Steel Wares, Ltd., Toronto.

THE BUYERS' DIRECTORY

Hospital & Kitchen Equipment Co., Ltd., Toronto.
Metal Craft Co., Ltd., Grimsby, Ont.
Wrought Iron Range Co., Ltd., Toronto.

TRUSSES
Dominion Rubber Co., Ltd., Montreal.
J. F. Hartz Co., Ltd., Toronto.
Ingram & Bell, Ltd., Toronto.

TUBING
Davol Rubber Co., Providence, R.I.
Dominion Rubber Co., Ltd., Montreal.
Sterling Rubber Co., Ltd., Guelph, Ont.

TUMBLER COVERS
Hygiene Products Ltd., Montreal.
G. H. Wood & Co., Ltd., Toronto.

ULTRAVIOLET EQUIPMENT
Burke Electric & X-Ray Co., Ltd., Toronto.
Casgrain & Charbonneau, Ltée., Montreal.
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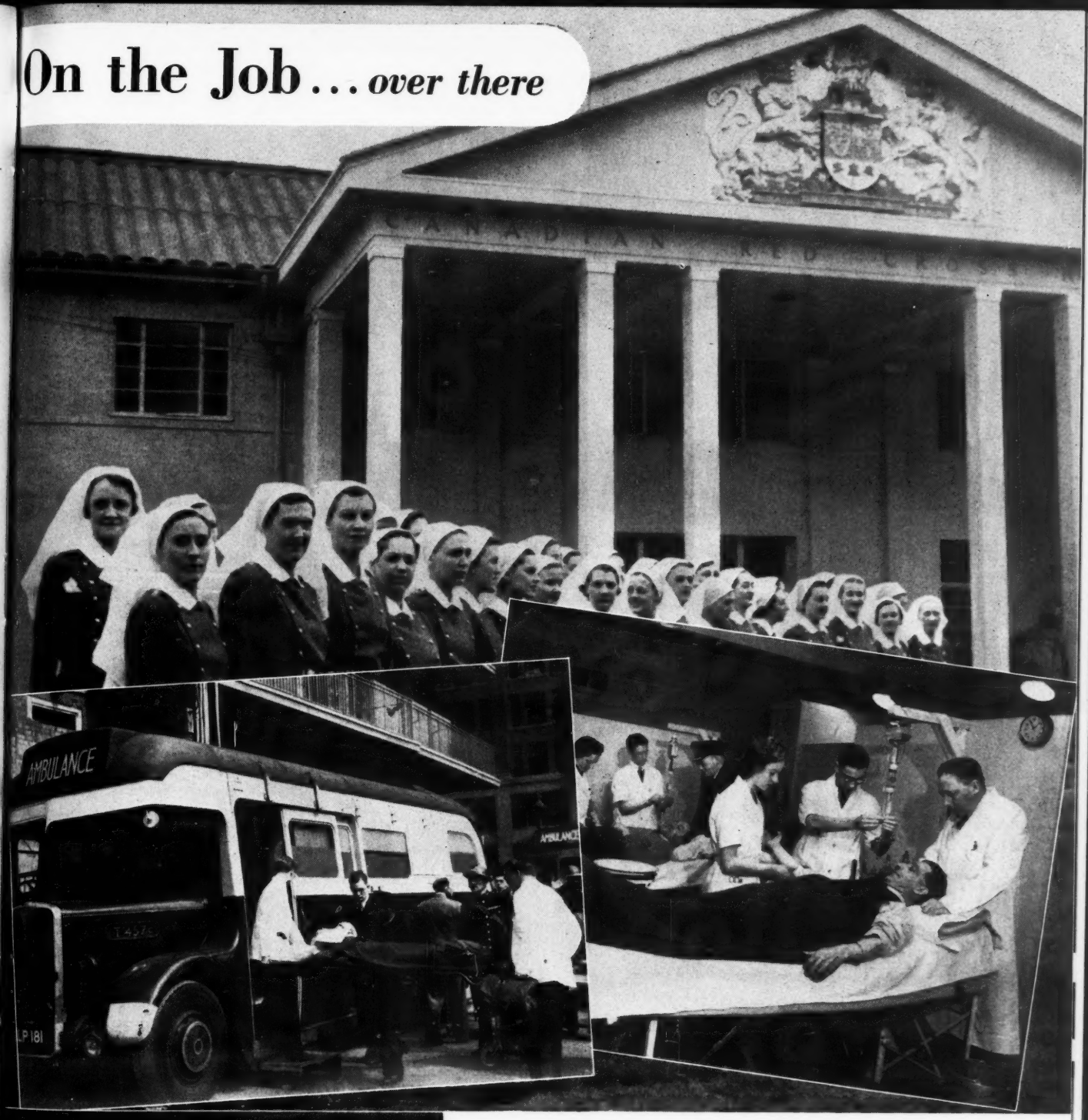

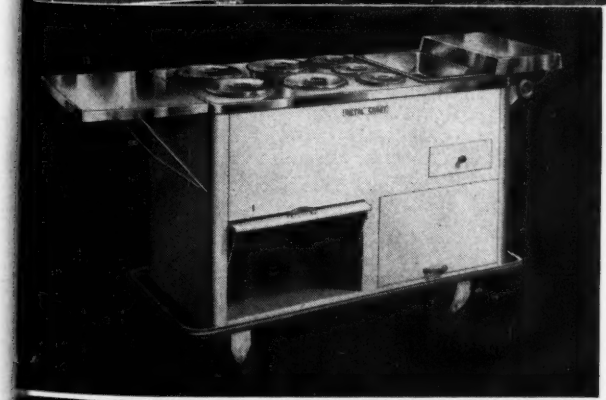

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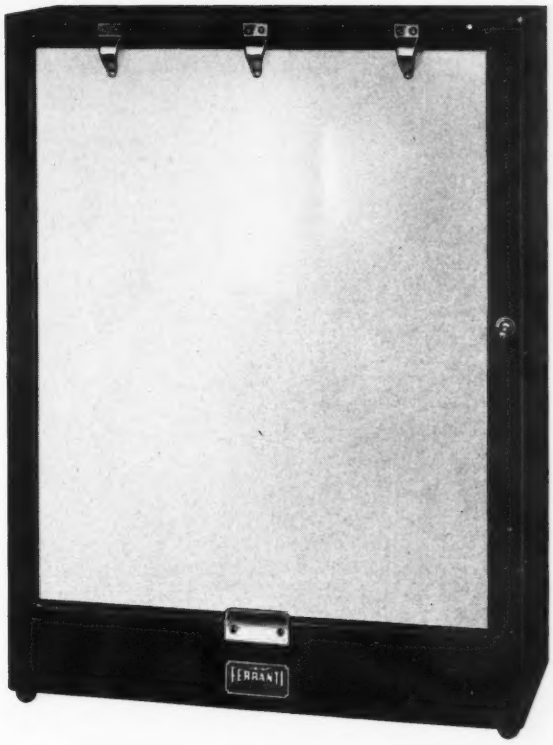

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